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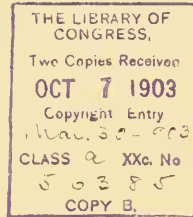
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ALBANY, N. Y.:
J. B. LIPPINCOTT & CO.,
PUBLISHERS.
1903.

PREFACE

To see an object is a simple act. To perceive its outlines accurately is an act of higher quality. But to behold a thing in the fullness of its manifold interrelations is a power partly inherited, partly acquired, whose rarity is not less than its priceless worth. Nowhere is this comparison more prominently forced upon our notice than in the field of educational work. With the average teacher the educational process has consisted chiefly in furnishing his students instruction per capita. With a rapidly increasing minority the student himself has been studied, and his interests, his limitations, and his status in general carefully marked out. But with only an exceedingly few has the problem of educational work been dealt with in full recognition of the organic interrelations of its physical, psychological, and sociological aspects and with a comprehensive grasp of the whole student period in its bearing upon the future life work of the student.

Instruction is necessary, of course, and fundamental. But the student himself must be under-

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stood, and his instruction adapted to his natural conditions of development, both those conditions which apply to him in common with all students, and also those conditions peculiarly individual. Further, the social and industrial life surrounding him must be carefully studied, as determining to a considerable extent the whole character of his future life work. For education ought to prepare the student directly and organically, yet broadly and thoroughly, for a life work. There can be no other justification for our splendid array of educational institutions. In fact, there can be no other justification for our very existence. It is not enough for us to be. We must do — do something worthy, and do it well. Yet society is so organized that thorough preparation for a life work necessarily involves a preparation for usefulness in certain fields of correlated activities. This brings an obligation for trained social service. Besides, most persons feel an active interest in certain subjects not in any way connected with their professional interests, and oftentimes achieve valuable results along such lines. To provide for such training and to furnish general culture along those great lines of activity not included in the student's professional

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training becomes an essential part of a complete scheme of study.

It will not be expected that so comprehensive a subject can be dealt with, in this limited compass, in other than general outlines. In fact, the only apology offered for the existence of this volume is the prayer that it may aid in marking out more clearly the fundamental features of our educational work. At some future time it is hoped to take up each great stage more at length.

While a discussion of this character may, of right, be expected to be thoroughly awake to the best of recent pedagogical thought and experience, and fearless in criticism where occasion seems to demand, the writer has tried to keep before him that it is not less important to be catholic in spirit and conservative respecting the advocacy of radical departures from established usages and customs. It has been above all things else the endeavor to deal in an impartial and scholarly, yet simple and practical, spirit with these, the most profound principles of student life.

J. G. M.

Monmouth, Ill., July, 1903.

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CHAPTER I.

INTRODUCTORY

Need of Comprehensive, Organic Conception of Educational Work.—In dealing with any problem it is necessary first to search out its fundamental principles, and then to marshal these fundamental principles into a comprehensive, organic outline. It is not strange that one who does not understand the relation of the part to the whole should do his work wrongly. Much of the conflict in education to-day is due to the fact that the teacher, be he in whatever field, is apt to forget his relative position in the whole scheme of the student's career, and consequently to mistake the relative importance, and sometimes even the real function, of his own work. In this way we have built up a series of loosely connected educational systems, one above the other, rather than one organic system extending throughout the entire period of student life from the kindergarten to and through the professional

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school and into active life-work. We need, if possible, to organize our educational work upon the basis of a science.

Is There a Science of Study?—Is there a Science of Study? If so, why all this conflict of curricula? If there is a Science of Study, upon what basis shall it be determined? Why are our educational institutions divided off into their present classification, as primary, grammar, secondary, college, and professional schools? Is this classification an arbitrary creation of educators, or has it been based upon the natural principles of life unfoldment of the student? What underlying principle, or set of principles, determines the quantity and character of work required by each of these classes of institutions? Has this work been carefully and closely adjusted to the great conditions of life unfoldment during the student period? Or, previous to this last, has the normal period of life which can best be spent in study—no less, no more—been approximately determined, subject to physical, psychological, and sociological conditions; and, if so, upon what basis? Following this, has the period of student life been closely and scientific-

ly observed, to notice what vital changes of attitude in the student occur during this period, and when, and their significance in determining courses of study? Further, has the field of knowledge material been investigated and classified with direct reference to its value to the student, taking into consideration all the individual conditions of his development, as well as his sociological environments? Finally, has this classified study material been adjusted, in proportion to its relative value, into courses of study that were planned with direct reference to the conditions of student development and to the whole aim of study, so that the entire scheme of educational work from the kindergarten to the university shall be rational and organic; or, if this has not been done, are there any fundamental principles of education constituting a Science of Study by means of which such courses of study may be constructed?

Need of Investigation.—Such, in substance, are the great questions that confront everyone who is called to exercise a directive influence over the education of our youth. That the character of the work done in many of our educational

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institutions leaves much yet to be desired is generally recognized by leading educators, and it is also generally agreed that the interrelations between the different grades of our educational work are still far from being organic. Surely, there are clearly defined principles upon which a rational and organic scheme of study, flexible, adaptable, and extending through the entire period of student life, may be scientifically wrought out. Let us investigate.

CHAPTER II.

THE DEFECTIVE ORGANIZATION OF OUR EDUCATIONAL WORK

Present Spirit of Educational Investigation.—

Nothing at the present time is the subject of a profounder inquiry and discussion on the part of the educational public than the interrelationship of our various educational institutions and the kind of work to be done by each institution. We have made such wonderful advancement along a rapidly widening field of multiform activities in the past quarter of a century that many of the educational ideals of a few years ago are felt to be entirely inadequate now. This is not a mere meaningless reaction against the unpedagogical practices of the past. Rather, it is the expression of the new order of things. But a short time ago and he who dared to question the infallibility of our educational system — if the present ar-

rangement may be rationally called a system — was denounced as an enemy of true education. With progress in other lines, however, has come the spirit of scholarly, dispassionate, thorough-going inquiry into our ways of preparing our youth for life work. Schools, colleges, and universities are being weighed in the balance of an exacting public opinion. Courses of study that were once considered satisfactory, because they bore the ear-marks of time-honored usage, have been put to the test from the standpoint of present-day ideals, and discarded. Formerly, when we attempted to determine the value of a course of study we looked back into the past and inquired what had been done. This inquiry seemed all-sufficient. Now, we are striving to adjust educational work to present conditions; still keeping an eye upon the best achievements of the past, it is true, but looking more intently into the future.

The Spirit of Combination and Organization.—We are beginning to realize that no scheme of education is rational and complete which is not closely organic from the time of entrance into the kindergarten to the end of the professional course.

EXISTING ARRANGEMENT

The spirit of combination and organization, which is becoming so powerful in the commercial world through the formation of gigantic business enterprises of a magnitude undreamed of by our fathers, is also making itself felt in the realm of pedagogical effort. This has brought to light many weaknesses in the current scheme of education, and we now see that the practice of some of our institutions of learning has, heretofore, been such as to make impossible a close, organic connection with the other related institutions. Steps have already been taken toward establishing an organic relationship between all grades of educational work, and a number of vital changes for the better have been inaugurated. But there yet remains much to be accomplished, and it may be worth while, in passing, to note briefly a few of the features which are especially pertinent in this connection.

Existing Arrangement of Educational Institutions.—The existing arrangement or sequence of educational institutions comprises the kindergarten, the primary school, the secondary school, the college, and the professional school. Is this an ideal system? It has not proved such in the

past. Our most eminent educators are agreed on that point. Yet, while the defects have been serious, and, in some cases, far-reaching, the scheme in itself is too valuable to be dispensed with. Considerable re-adjustment is needed, however, to bring the system into full harmony with the present conditions of society in its relation to the various callings, trades, and professions.

Our Common Schools.—For generations an unceasing stream of animated and sometimes bitter controversy has been going on over the work of the common schools, and yet because of this very fact, it may be, the common schools have more nearly fulfilled their proper function than has any other class of institutions in the whole field of pedagogical activity. This does not mean that the common schools have been free from serious faults or that they are now in no need of efforts for their betterment. The very democratic, cosmopolitan character of the common school system has rendered it liable to a multitude of weaknesses. But these have been weaknesses of method rather than of constitution and purpose. The avowed purpose for which the common

schools were established — to prepare our youth for good citizenship — has been clung to with admirable consistency. All efforts to bring them into the narrow, specializing sphere of mere training schools for the various trades and professions have signally failed. Common school training has been with us, as it should be, a general preparation in the fundamental features of intelligent citizenship. This has been the constant aim, but the results have been, in many schools, far from satisfactory. Insufficient compensation for teachers and the consequent inferiority of their preparation, resulting in a certain woodenness of methods, has done much to lower the grade of work that may of right be expected from so excellent a plan of providing for the general education of the great mass of the people.

Earlier Secondary Study.—Until recently it remained practically unquestioned that secondary instruction should not be begun before the ninth school year, or the first year of the present high school course. Of late the conviction has gradually been gaining ground that secondary studies should be taken up earlier. In many schools

certain secondary studies, as algebra and a foreign language, have been introduced into the eighth grade with marked success; and it is now being seriously discussed whether secondary studies may not be profitably commenced with the seventh school year. This, at least, has grown into a conviction with the leaders in public school work — that we have been giving too much time to elementary studies. We need a closer organization of our public school system with direct reference to this particular feature of school work.

Relations between High Schools and Colleges.— Whatever the lack of organization at other points, it is admitted on all sides that a great breach lies between the high schools and the colleges. The very origin of the two institutions has been the chief cause of this. The college has come down to the present as the representative of the classical learning of mediæval times. The high school, on the other hand, sprang up as the people's college, the representative of modern educational ideas. Numerous attempts have been made to reconcile the antagonisms which

have thus arisen, but in the main these efforts have not been successful.

It is interesting to look at ourselves through the eyes of an outsider, one of the most profound pedagogical thinkers of modern times :

* “ Notwithstanding appearances and the intentions of the Americans themselves, who in their defective definition assign only high schools and similar institutions to this grade of instruction, American secondary instruction comprises two parts and is divided into two periods — the high schools and the colleges. . . . The Americans themselves are the first to recognize the imperfections of their system of secondary instruction, but are not, perhaps, so sensible as we would be of the incoherence of an organization which intrusts to different institutions the successive development of one uninterrupted grade of instruction. One inconvenience which results from this arrangement is that a majority of the high school pupils do not pursue their

*Gabriel Compayre, in U. S. Education Report for 1895-96, pp. 1168-1169.

DEFECTIVE ORGANIZATION

studies further. While in France nearly all the pupils of the quatrieme continue their studies until the end of the secondary grade, hardly a sixth of the population of the American high schools pass on into the colleges. . . . The evil from which American secondary instruction suffers has an historical explanation. When their existence began in the seventeenth and eighteenth centuries, there was no intermediate grade between the primary schools and the colleges and universities. Later, the State, or, to speak more correctly, the States, took in hand the organization of the primary schools, which became the common schools, but they left the colleges and universities alone, as having independent life of their own. Then the directing powers proceeded to intercalate an intermediate class of institutions between the common schools and the private colleges which should unite the two and also be public schools. This was the origin of the high schools, and as they were established at the public expense, it was necessary to take into account both their adaptation to the wants of the majority of the citi-

zens who do not wish their children to have a complete course of secondary instruction, and also the needs of a small number of scholars who desire to enter college."

Character of High Schools and Colleges Compared.

— And yet, when we look closely into the character of our high schools and colleges and compare their work with reference to its real value as a preparation for successful living, we are brought irresistibly to the conclusion that the high schools have been much nearer to their true educational position in an organic scheme than has been the case with the colleges. The high schools, while lacking in some essential respects, have been in touch with the people; the colleges have not. The high school courses, though perhaps not always the best, have been what the majority of the people wanted. On the other hand, the typical college course has been something apart from the real life of the mass of the people — a relic of days gone by, an ideal out of tune with the busy age in which it strove to keep alive.

There is no man in this country who stands higher in a comprehensive and profound grasp of

educational work, from the quasi-classical standpoint, than does the newly chosen head of Columbia University. He said recently:

* "It is my belief that forces are now actively at work which will result in the destruction of the American college during the next generation, or, at least, in the destruction of its essential characteristics; first, perhaps, as it exists in the larger universities, and then elsewhere. These forces are: On the one hand, the rapid development of secondary schools — particularly public high schools — and the extension of their work upward into the field hitherto occupied by the freshmen and sophomore years of the college; and, on the other hand, the invasion of the junior and senior years of college work by professional and technical studies which are quite foreign in spirit, method, and purpose, to the studies which they are displacing. . . .

"The growth of the public high schools and the upward extension of their work into the

*Pres. Nicholas M. Butler, in *A. M. Review of Reviews*, Nov. 1902, pp. 589-590.

HIGH SCHOOLS AND COLLEGES

field formerly occupied by the early years of the college, seem to me to be an unmingled public blessing. . . . I accept this change, therefore, as not only inevitable but beneficial. I recognize the ability of the best secondary schools to do not only as well as, but even better than, the colleges have been in the habit of doing the work of many of the studies of the freshmen and sophomore years. . . . College teaching has, at this point, failed to keep pace with the tremendous educational advances of the last generation; while the secondary schools have availed themselves of the new tendencies and opportunities to the utmost.

“On the other hand, I do not believe that the displacement of the remainder of the college course by professional and technical studies is either necessary, wise, or desirable.”

President Harper, of the University of Chicago, is severe in denunciation of the attitude maintained by the conservative “classical” colleges:

* “A class of fifty men enter college,

*William R. Harper, in U. S. Education Report, 1895-96, p. 1337.

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no two of them alike in equipment, natural taste, mental aptitude, or intellectual ability, and yet they have been required to take the same studies, within the same number of hours, in the same way and with a sameness throughout that makes college life for most of them a distasteful thing and an injury. I stand ready to assume the responsibility for the statement that many men are injured by college training, and that the cause of the injury in nine cases out of ten has been the inflexible, cast-iron routine of the college curriculum, which, let us congratulate ourselves, is fast becoming a thing of the past. Less harm has been done than would otherwise have been the case, because as a matter of fact only men of a certain disposition in days past have received an education. A great change has taken place among us to-day. Men of different types of mind, men who have no idea of becoming scholars, men who would be artists, mechanics, business men, as well as those who have in mind the ministry or the law, may receive an education adapted to their needs and capabilities. That

the doctrine of individualism is beginning to be respected is evident from the establishment of scientific schools, technological schools, and from the high position which these schools occupy now side by side with the college, a position to which they could not lay claim even so short a time as ten years ago. But the same sin (for it is a sin against God and against man) is still committed in most of our institutions, even in those to which reference has been made. The individual is forgotten in the mass. In how many colleges is it the custom to take, as it were, a diagnosis of the mental constitution of each student similar to that which the physician makes of the body? It is not unusual in these days in connection with the work of the department of physical culture to have each man examined, the weak points of his body pointed out, and the principal exercises indicated that will help him. Is such a thing done for the mental constitution? The present college methods too often compel failures, and it is more or less accidental that a man receives real and genuine help in his development. Why is it that so

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many men achieve marked success in life, in their profession, and in every line of business, who have never seen the inside of college halls? Because contact with men does for them what technical education is supposed to do for those who avail themselves of its advantages. The feeling against higher education which has existed is not without some justification. A radical change is demanded—a change which shall shake to the foundations the educational structures that have been erected.”

The distinguished head of the great institution at Chicago is, by no means, the only eminent university executive who voices the sentiments just expressed. President Jordan, of Leland Stanford University, and President James, of Northwestern University, have declared themselves in no uncertain manner. Says President Jordan, in terms somewhat milder, but not less decisive:

* “The ordinary college course which has

* David Starr Jordan, in U. S. Education Report, 1894-5, p. 1280.

been handed down from generation to generation is purely conventional. It is a result of a series of compromises in trying to fit the traditional education of clergymen and gentlemen to the needs of men of a different social era. The old college course met the special needs of nobody, and therefore was adapted to all alike. The great educational awakening of the last twenty years in America has come from breaking the bonds of this old system. The essence of the new education is individualism. Its purpose is to give to each young man that training which will make a man of him. Not the training which a century or two ago helped to civilize the masses of the boys of that time, but that which will civilize this particular boy. One reason why the college students of 1895 are ten to one in number as compared with those of 1875, is that the college training now given is valuable to ten times as many men as could be reached or helped by the narrow courses of twenty years ago. In the university of to-day the largest liberty of choice in study is given to the student. The professor advises, the student

chooses, and the flexibility of the courses makes it possible for every form of talent to receive proper culture. Because the college of to-day helps ten times as many men as that of yesterday could hope to reach it is ten times as valuable. The difference lies in the development of special lines of work and in the growth of the elective system. The power of choice carries with it the duty of choosing rightly. The ability to choose has made a man out of the college boy and transferred college work from an alternation of tasks and play to its proper relation to the business of life."

Relations between Colleges and Professional Schools.

—No one acquainted with higher educational work would maintain, for a moment, that there has all along been any direct relation, organic or even orderly, between the "liberal" course of the average college and the professional courses. The student, on finishing his college course, has ordinarily found himself obliged to enter upon a professional course so entirely different from his college work that he has lost valuable time in adjusting himself to his new studies. Worse than

that, he has found himself handicapped by his ignorance of elementary and correlative knowledge bearing upon his work in the professional course — knowledge which he should have acquired in his college course. Like the entrance of most other great truths upon the field of human action, it has taken the college authorities a long time to realize that the chief function of a college course is to fit the student, directly and organically, not in a general disciplinary way, to benefit to the utmost by the professional course in the university. It can hardly be said that the majority of our colleges, as yet, realize their proper function in the general scheme of student life. True, many are converting the last two years of the course into preparatory work for the professional course; but only a very few, as Harvard and Leland Stanford, are permitting their students to elect their work throughout the whole course with direct reference to a broad and thorough preparation for entrance upon the professional course, under the guidance and counsel of advisory committees from the faculty.

Character of Our Professional Schools.—On the other hand, many of our so-called professional

schools are not worthy of the name. Our State normal schools are practically of high school grade, or, at best, may grade with the first years of college. The same may be said of many law schools, and, to some extent, of the medical schools. The general standard, however, of many of the best law schools and medical schools is being gradually raised by increased requirements for entrance, and by State requirements for admission to practice. Still, it must be admitted that the low standard of requirements permitted by a large number of the States is responsible for the numerous low-grade institutions of these two professions.

But it is in the business world that our professional training proves weakest. We have no commercial schools, in the professional sense, with the exception of the Wharton School of Finance and Economy, a part of the University of Pennsylvania; the School of Commerce of the University of Wisconsin; and perhaps a few others in process of formation. President James, of Northwestern University, in his able report on commercial education in Europe, points out in

strong contrast the inferior character of training given by our so-called business colleges:

* "There is at present little opportunity for a youth desiring to enter business life to get any systematic assistance in preparing himself for his future career, if he desires or expects to engage in anything but clerical work. . . . It may be said that the best preparation is a good general education of the literary high school and college. This has always been the answer to every proposition to organize professional or technical education. It is essentially the mediæval idea of education, and it dies only very slowly and very hard in the face of modern progress. The best practical answer to it is the fact that practical men as a class will have nothing to do with it. Opportunities for such education have been open to the business classes for three centuries, and they have availed themselves of them only to a very limited extent either in Europe or in America; while, when-

*Edmund J. James, report to the American Bankers' Association in 1893; U. S. Education Report, 1895-96, pp. 722-723.

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ever a special education of high rank has been open to them they have shown their appreciation of it by patronizing the institutions which offered it.

“The fact seems to be that in every line of educational life the number of people who will take a very extensive course of study of a purely liberal character is very small indeed, while the number of those who will take an extensive special or professional education is large and continually growing. Indeed, if you were to cut out of our present so-called liberal courses those persons to whom the study of Latin, Greek, history, mathematics, science, etc., is not only a liberal but also a technical pursuit in the sense of preparing them directly for their future work — namely: teachers, preachers, lawyers, physicians — the number left in these courses would be astonishingly small.

“We can conquer the uneducated and half educated people of this country for secondary and higher education only by offering them courses of study which, while they are of a strictly educational character in the best sense

of the word, shall also have some bearing on their future every-day life, shall have some direct relation to the work they are called upon to do in the world. . . .

“A commercial training must be really educational in character. What this means, in the domain of secondary education, can be seen if one will take the six months' course of the average so-called commercial college in the United States, and compare it with the three years' course of the school in Vienna, or Prague, or Leipsic, or Antwerp, or of the two schools in Paris. It is work of this latter character which is at once practical and liberal; which educates for life while it trains for a livelihood, and which should be introduced into our scheme of public education.”

Can an Organic Educational System be Constructed?—Look where we may among all classes of educational institutions we cannot help having forced upon our notice the injurious effects of our arbitrary, haphazard process of preparation for life work. Doubtless, there are many things in the nature of social conditions existing in so

great and varied a country, that make the construction of a satisfactory educational system a matter of momentous difficulty. Among a people so widely scattered, of many different origins, of different social customs, and having widely different ideas of what constitute the demands of present civilization, there must, of necessity, be correspondingly wide differences of opinion regarding the kind and the quantity of educational training requisite to a satisfactory preparation for life work. But the difficulty of the undertaking, however great, is no argument against the eventual establishment of an organic scheme of education, if by such a scheme we can secure better results, and in a shorter period. As respects this, the only questions are, (1) will the establishment of an organic scheme of education better matters, and (2) under such conditions as exist in this country is it possible to establish such a system?

* "Germany may be said to have a system of education; France likewise; but in Amer-

*Pres. William Harper, address before National Educational Association, 1895; U. S. Education Report, 1895-96, pp. 1335-1336.

ica, as a whole, there is no trace of anything that might be rightly called a system. It is true that there is a so-called public school system; but this is at best partial, covering only a small portion of the field, and in effective operation only in certain portions of the country. There is in certain States — for example, Michigan and Minnesota — something which looks like a system in the relationship that exists between grammar schools and high schools and between high schools and the State University; but this is only partial and of questionable efficiency, even in the States in which it has been most fully developed. . .

“It is possible that the results of our work as at present conducted may justify the lack of a system; and, indeed, the lack of system. There are those who praise unduly these results. They are in most cases, however, persons unfamiliar with the results obtained from other countries, for it is beyond dispute that the average boy of 18 or 19 who has finished the grammar and high school courses has had no such advancement as the boy of corresponding age in Germany. It is beyond dis-

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pute that whatever advantages the average American college possesses, whatever it may do for its students in discipline and in real effectiveness, it by no means ranks with the gymnasium or the lycee. The results do not justify either the amount of money expended or the amount of work given to the cause of education in America. The introduction of order and system would double the efficiency of the work done, save two to four years in the life of every student, and secure a thoroughness which would revolutionize American methods in politics, business, and letters. . . .

“The question is, have we waited long enough, and has the time come when effort of a most vigorous character shall be put forth to do that which hitherto we have expected to be done of itself? The difficulties attending the adoption of any general plan which could be denominated a system have not been overlooked. (a) We are still a young and undeveloped nation. Has the proper time arrived for a national system which shall not only include all that has thus far grown up, but at the same time organize the whole into

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an organic and systematic unity? (b) We are not as yet a people. The term peoples is more appropriate. Many and discordant are the elements of which we are composed. Is it possible to develop a system which shall be pleasing to all? (c) Will not better results be achieved if we move along independent lines, each investigator watching the results of all and adopting from time to time that which commends itself to him? These and many other objections present themselves in opposition to the advocacy of a system. But I would answer: (1) We have at our command the wisdom and experience of all the ages, and if we are not in a position to-day to take the necessary steps to formulate a system, we never shall be. (2) The very fact that as a people we have among us representatives of so many nationalities; the very fact that our great purpose in reference to all foreign nationalities is the purpose to Americanize them — in other words, the very circumstances of our situation — should incite us to provide a system of education which, like our American system of government, shall be unique

and worthy the name American. (3) The adoption of a system does not shut out experiment and investigation, but rather encourages them. A system is not necessarily rigid and mechanical, but may be most flexible. Nor is it supposed that any system will continue to be used without modification. The very fact that it is a system carries with it the idea of growth, and growth means change."

A Preliminary to The Establishment of Such System.—But before an ideal educational system can be evolved it is necessary that our educators generally shall get a more comprehensive understanding of the fundamental principles underlying an organic scheme of educational institutions. The greatest obstacle with which the student has had to contend, in his effort to get an education, has been the general indifference of all classes of teachers, from the primary school to the university, to those phases of the educational process outside of their own particular field. Nowhere is it true with greater force than in educational work, that he who does not comprehend the general outlines of the whole process is not really

competent to work in any part of it. So, the aim in the succeeding chapters will be to discuss the work of each period of student life from the standpoint of the student's whole career. It is not the purpose, in this connection, to propose any scheme of educational institutions, but rather to inquire into the fundamental features of the student period in order to determine, if possible, whether an organic scheme of study, extending throughout the whole student career, from the kindergarten through the professional school, may be rationally constructed. This does not mean that all students should be required to take the same studies throughout the student period. On the contrary, the inquiry will be, can not the educational process be so manipulated that each individual student shall be scientifically developed into the fullness of his inborn individuality? In other words, is there a science of study?

CHAPTER III.

THE ORGANIC BASIS OF STUDY

General Inquiry.—Can the outline features of a complete scheme of study, ranging through the whole period of student life, be rationally determined, and if so, upon what basis?

Is There a Science of Education?—At the very outset we are confronted by the question: Is there a science of education? If the educational process is a scientific process, there is inferentially a science of study; but if the educational process be merely arbitrary, then there can be no science of study. Hence the nature of the true educational process by which the lives of our boys and girls are developed into fullness must be determined before an intelligent opinion can be formed respecting the outline features of an organic system of study.

First Step in Investigation.—The first step in such investigation is to get a clear conception of what

education means in general, and of what it means for individuals in particular. Before educational work can be successfully planned and directed it is essential to understand clearly these first principles. It will not suffice to have a general notion that education means improvement, or that it is but a preparation for greater enjoyment of life, or a means of achieving greater life-results. The teacher ought, at the beginning of educational work, to comprehend the whole aim of education, which comprehension can, it is true, only be elementary; but nevertheless it can be complete in scope. If the teacher expects to make real, to the fullest extent, the possibilities latent in the educational process, he must reach out and grasp the universal fellowship of man; he must perceive the object of human existence and how the students as individuals are best fitted to take a helpful part, each in his own peculiar way; for school work cannot afford to be at cross-purposes with the established order of things.

Position in Life Determined by Conception of Education.—National as well as individual position in life is determined largely by the prevailing con-

ception of education. It is not possible to reach completeness of development without embodying the whole aim of education. If the recognized educational agencies seize upon one phase of life and develop that phase unduly, it is idle to expect other than an abnormal and one-sided growth. Just what education means is not easy to state in a single sentence. Master minds of all ages have attempted to define its meaning, but their definitions present an extremely varied array; sometimes because they have expressed the same conception in different terms, and sometimes because the conceptions have been widely different. But among them all there seems to be a common bond that education is for completeness of life, as understood in their own age and in their own quarter of the world. The summary of Dr. A. R. Taylor is well put, when he says:

“Various attempts have been made to state the object of education. Plato would have it to be the perfection of all the powers of man. Dante declared it to be to fit man for eternity. Milton thought it to be to regain what man

lost in Adam's fall. Spencer says that it is to prepare man for complete living. Rosenkranz makes the object to be to develop the theoretical and practical reason in man, to give him freedom. Few, however, seem to emphasize fully the idea that its end is to advance the youth in his efforts to become like the Infinite. In His image is he created, and every activity exerted should be a striving to realize the possibilities thus assured."

Some Educational Aims.—The vast differences in educational practices have come from the equally varying conceptions of what constitutes complete living. It is instructive in this respect to notice some actual results of the workings of several educational aims that have been most prominent at different times in the course of human progress.

Chinese.—The educational system of the Chinese is the great thorn in the side of those who are trying to infuse a higher life into that people. Intent upon perpetuating the traditions of their past, the minds of their students are filled with musty accounts of ancestral doings, learned by

rote and without attempt at understanding. New ideas are disapproved. Progressive plans are crushed. Everything bows to the past. Those nobler powers of the human mind—the lofty imagination with its almost illimitable range of soaring; the creative genius with its cosmopolitan adaptability and its marvelously fertile fields for action; the warm-blooded, heart-thrilling, spontaneous impulse of universal brotherhood, reaching out through time and space to other lands and other ways, giving and gaining inspiration and substantial help on every hand—there they lie, like seraphic prisoners, chained to a barren spot of earth, with the irons of tradition on their limbs and the dust of ages in their eyes. What shall we call this—crystallization, petrification, mummification? Something is manifestly lacking in such a system of education.

Spartan.—The ancient Spartans dwelt almost exclusively upon the culture of the physical body. War was their profession, and their chief educational aim was to produce a race of victorious warriors. They were remarkably successful for a time, but they have passed away and their influence is not appreciably felt in modern life.

Their aim was selfish and temporary, and their results perished simply through lack of vital, existing qualities. Education means more than the Spartan discerned.

Ascetic.—The opposite extreme was reached by the monks of the early middle ages. Overwhelmed by the sinfulness of the world, they became convinced that the only way for them to attain an ideal life lay in complete isolation from their fellow-men, and in the degradation of the physical body. Such a monstrous doctrine, so widely at variance with the established order of human society, was destined to be short-lived. Originating in a reaction from the widespread sensual indulgence then prevailing, it served its purpose and expired.

Scholastic.—In the later middle ages the opposing schools were Scholasticism and Mysticism. The Schoolmen accepted without question all the prevailing dogmas, and proceeded to discuss them with an intellectual subtlety.

“That would sever and divide

A hair 'twixt north and north-west side.”

“How many angels could stand at once on the point of a needle?” “Do angels, in moving from

place to place, pass through the intervening space?" "If a donkey were placed exactly half-way between two stacks of hay, would he ever move?"—are samples of the questions upon which they practiced their intellectual gymnastics. The last question presumably involves a delicate adjustment either of gravitation or of gastric attraction, though one is inclined to doubt the probability of the average modern donkey's discussing the matter at any great length.

Mystic.—If the Schoolmen displayed little originality, the Mystics used even less. All questions of doubt they referred to "the natural Christian soul within," which meant, practically, not their own better judgment, but the dictum of the ecclesiastical authorities. It is patent to the observer of human nature that such repression of originality could not long exist side by side with such intellectual activity.

Radical Scientific.—Its reaction has come in the modern scientific school, whose extreme is represented by Rousseau and Haeckel and Ingersoll. The Schoolmen never dreamed of probing beneath the surface of established beliefs. The radical scientist would not, for a moment, accept

a dogma that he can not trace to its very origin by his unaided reason. This extreme scientific view has been greatly modified in recent years as it has become manifest that many of the great truths of life can not be fathomed by human logic alone. But it should be remembered that this intensely analytical and critical spirit is an abnormal, not a natural condition of the human mind. We can not live by intellect alone, and any school of thought which fosters such a system is radically wrong.

Classical.—Not until recently has the classical monopoly been broken. Rising in the fourteenth century with the discovery of ancient Greek and Latin manuscripts, it gained strength rapidly and for the last four hundred years has dictated the educational creeds of civilized nations. That much good may be obtained from the study of Greek and Latin literatures and institutions is not to be disputed. But, like many other good things, it has been carried to excess. Within their proper limits, Greek and Latin are of great value, both as disciplinary and as culture studies. They need, however, to be balanced by studies in modern civilization, that the student may be-

come familiar also with the spirit and structure of the social life around him. It is not a question of whether such extended study of the classics is valuable, or whether it is more valuable than some other study; but whether it is the most valuable material that can be given the student in this formative period. Looking at the matter in this light, we can not but think it wise that educational sentiment is limiting the classics to their proper place, and is supplying more than formerly such material as is directly applicable to the conditions of that social life by which the student finds himself surrounded and upon the understanding of which depends his success when he leaves his studies and enters upon his life work. This does not imply a lowering of the educational standard. On the contrary, it seeks to elevate the standard and to broaden it, to make it more substantial and more real.

“Liberal.”—Another doctrine, or more properly speaking, a phase naturally growing out of the Scholastic and Classical doctrines, has been for centuries, and still is, one of the most subtle and dangerous opponents with which educational progress has to deal. It may not be altogether

fair to represent this class of educators by the professor who, in discussing the modern demand for an education of tangible, substantial value, thanked God that, at least, the science which he taught could not be prostituted to any useful purpose. Doubtless, his is an extreme case; but even the most casual observer of educational curricula can not have failed to notice that our schools, from the primary to the university — and the higher the grade the more noticeable the peculiarity — have been, and in many cases still are, permeated by this abstract, anti-utilitarian doctrine of contemplative happiness and isolated perfection under the guise of a “liberal education,” in contrast to the method of making every branch in the curriculum a clearly-defined, organic part of a training which proceeds at every stage to develop the student to his fullest capacity with direct reference to his utilitarian value as an active factor toward the betterment of his fellow-men, in whatever sphere of action his natural gifts may eventually call him. It would, perhaps, be unfair to say that this class of educators have felt no interest in ordinary human affairs. Let us rather take the more charitable view that,

in their zeal to prevent our educational institutions from becoming mere training places in the art of money-getting, they have swung to the opposite extreme of æsthetic idealism, and have lost sight of the golden mean of education which combines completeness of development with utility of service.

“Practical.”—Probably the most powerful bias with which educators have to contend lies in the so-called “practical education.” It is not strange that the remote practical value of much that has composed our courses of study in the past, and to some extent in the higher departments yet, should have caused a reaction against such training. The unpractical air of so many learned persons has created a far-reaching impression that a systematic course of preparation is not at all necessary for successful life work. Those who believe in this creed hold that we should get into our life work as soon as we can squeeze through the passageway, and then prepare ourselves more fully in what time we can spare from our daily duties. The fallacy and disadvantages of such a method of education are evident to everybody. Every town of consequence is crowded with ill-

trained lawyers and physicians, whose professional worth is approximately represented by that algebraic sign, familiar to students, which means less than nothing; and whose professional services in an important case would probably verify the approximation. Every community can produce its teachers and farmers and business men who are going to the wall through insufficient knowledge of their work, while others are successful all around them. Everywhere and in every profession men and women are making ignominious failures simply because they do not know how to do what they are trying to do. The "practical" educator will, perchance, reply that Patrick Henry and Benjamin Franklin and Andrew Jackson and Abraham Lincoln were self-educated men. And so they were; but let us distinguish here between this so-called "practical" education and true self-education, such as these great men wrought out. Practical education, as commonly understood, is narrow; it is all in all in itself; it does not see the wide interrelationship of things, the conception of which makes the broad-minded citizen and man of affairs. It is superficial; it skims along the surface, not diving

down for those great underlying truths which must constitute the foundation for all the superior forms of mental activity. It is not thorough; it has a constant atmosphere of hurry; it does not furnish a stable basis for that patient and accurate investigation so indispensable to high mental excellence. On the other hand, self-education, in its true sense, implies all that is implied in true school education; it may be broad and deep and thorough, rich in all the essentials of character culture.

True Principles of Education.—This short resumé of educational beliefs will, it is trusted, leave us better prepared to enter upon a consideration of the true principles of education. Having the experiences of others before us, we may profit by their experiments and be warned by their failures. Seeing wherein they have failed, we may seek more intelligently the meaning of life and its rational mode of development.

Let us, then, inquire what is comprehended in true education. To do this, let us consider its chief aim, its foundations, its method, and its means.

TRUE PRINCIPLES OF EDUCATION

Chief Aim.—The chief aim of education is wholeness of character. Benevolent in spirit and comprehensive in scope as the range of human powers, it recognizes that through the whole course of humanity runs a steady, unchangeable, divine purpose; and that the life of every individual is, or ought to be, the embodiment of a purpose in harmony with the social purpose. It recognizes that this social purpose and these individual purposes are so vitally interwoven that they must ultimately be both realized or both annihilated. It holds that the ultimate aim of human society is happiness—not alone individual happiness, nor class happiness, nor national happiness; but benevolent, universal happiness. And it strives to accomplish this purpose by developing the individual, physically, mentally, and morally, into a full, rich personality in that sphere where he is peculiarly adapted to work in harmony with the divine order of things.

* “By the word ‘education’ I mean much more than the ability to read, write, and keep common accounts. I comprehend under this noble word, such a training of the body as

* Horace Mann, *Lectures on Education*, p. 117.

shall build it up with robustness and vigor, at once protecting it from disease and enabling it to act formatively upon the crude substances of nature—to turn a wilderness into cultivated fields, forests into ships, or quarries and clay-pits into villages and cities. I mean also to include such a cultivation of the intellect as shall enable it to discover those permanent and mighty laws which pervade all parts of the created universe, whether material or spiritual. This is necessary, because if we act in obedience to those laws, all the resistless forces of nature become our auxiliaries and cheer us on to certain prosperity and triumph; but if we act in contravention or defiance of these laws then Nature resists, thwarts, baffles us, and in the end, it is just as certain that she will overwhelm us with ruin, as it is that God is stronger than man. And, finally, by the term ‘education’ I mean such a culture of our moral affections and religious susceptibilities as, in the course of Nature and Providence, shall lead to a subjection or conformity of all our appetites, propensities, and sentiments to the will of Heaven.”

Rational education, therefore, is not for mere meditative happiness, nor for isolated perfection, which latter is not possible. Human experience has amply demonstrated that the doctrine of the Great Teacher, when he taught that he who spends his whole life-thought on his own life shall lose it, but that he who spends his life in the elevation of his fellow-men shall find abundance of life, is a fundamental educational certainty. Not that all students, or even the majority, should be educated for ministers and mission workers. By no means. For some undetermined reason, the impression exists that only those *professions which disseminate theological doctrines are Christian in character. It is a profound mistake. There is no vital moral difference between the theological professions and any other honorable profession. They are all fertile fields in the earthly estate of the Infinite Husbandman. If there are immoral or non-moral manifestations in any of these honorable professions, such results are due to moral defects in the workers and not to the intrinsic nature of the work.

* By the term "profession," as used throughout this book, is meant all kinds of life work, no matter how designated in common usage.

* “ Nobleness of life depends, not upon our calling, but upon spirit and purpose. It is as honorable to teach school as to preach the gospel; to plow corn as to practice law. The inspiration of the high purpose, the beauty of a sincere life, are within the reach of all.”

The true purpose of education is to develop our youth so fully that all worthy callings shall be Christianized, and all unworthy callings die out for lack of support. Along no other line can human progress be directed. In no other way is fullness of life possible. For a true human life implies a life purpose; a life purpose implies a life work; a life work implies professionalism; only Christianized professionalism can bring substantial progress; and substantial progress is a pre-eminently necessary factor among those that make for a complete life.

So, education is for wholeness of character. Neither the intellectual nor the æsthetic aim, both of which have been prominent in the past, can fulfill the requirements. They are essential in so far as they extend, but they are only parts of

* J. N. Patrick, *Pedagogics*, p. 208.

the whole. Nor is there sufficiency in that higher aim which just now is being made the center of educational investigation — moral culture.

* “ Shall we make moral character the clear and conscious aim of school education, and then subordinate school studies and discipline, mental training and conduct, to this aim? It will be a great stimulus to thousands of teachers to discover that this is the real purpose of school work, and that there are abundant means not yet used of realizing it. Having once firmly grasped this idea, they will find that there is no other having half its potency. It will put a substantial foundation under educational labors, both theoretical and practical, which will make them the noblest of enterprises.”

Most educators will, doubtless, agree that moral culture in its broad sense should comprise a large part of the whole character-building process, for there can be no question that when the whole aim of education is analyzed, the most important aim is found to be that of moral culture.

* McMurry, *General Method*, p. 10.

Much of the discussion on this subject has arisen over the relative emphasis to be put on disciplinary and on information studies, and also over the adoption of school methods to this end.

Wholeness of character implies morality, but morality does not necessarily imply wholeness of character. A person may be what is commonly called a "moral character" and yet be a comparatively passive, stagnant factor in human affairs, while completeness of character necessarily means a masterly positiveness and progressiveness.

Foundations.—Let us classify the foundations of education under three heads, intellectual, moral, and physical, considering as foundations only the great natural phases of the student's activity out of which he grows from within himself, and not those other factors which may be more properly classified as aims or means. Our present purpose does not demand any extended discussion of these foundations, further than to notice that there should be a balanced development of them and that each should be developed to the highest degree consistent with the conditions governing the development of the other two. That is, the

time and the educational material shall be so distributed that these three chief phases of character shall receive continuous and harmonious development throughout the whole course of education. Fullness of development signifies, (1) intellectually — to quote President Gilman :

“(a) Concentration, or ability to hold the mind exclusively and persistently to one subject; (b) distribution, or power to arrange and classify the known facts; (c) retention, or power to hold facts; (d) expression, or power to tell what we know; (e) power of judgment, or making sharp discriminations between that which is true and that which is false, that which is good and that which is evil, that which is accidental and that which is essential.”

(2) Morally, (a) a clear conception of the moral constitution of society, and of every human life as the embodiment of a beneficent life purpose; (b) the development of the loftiest ideals of justice, honor, truth, beauty, duty, obedience, patriotism and love; (c) a strong will, able to lead one to do what he knows he ought to do

and to keep from doing what he knows he ought not to do; (3) physically, (a) a sound, well-developed body, capable of furnishing the physical force necessary to high mental activity and successful practical work; (b) skilled physical training adapted to the peculiar needs of one's profession, trade or calling.

Method.— The method of education is deduced from the foundations and the aim of education. It seeks to understand the nature of the individual, to understand the nature of society at large, and to adjust the individual to his environments in the way most effective for both. It takes the child as an individual practically isolated from the rest of the world, yet with a capacity for enjoyment and a latent power for working for the welfare of humanity in his own peculiar way; and it labors to bring out this capacity and this latent power in all their fullness. The early training of the child will necessarily be general and with reference to those qualities which he possesses in common with other social beings. Experience has shown, as a rule, that the special powers of the child do not manifest themselves before he has reached some degree of maturity. Just

where general training should leave off and professional preparation begin is a question upon which there has been the widest variance and from which have come the most unsatisfactory results. The determining principles will be outlined in a following chapter. Suffice it here to say that it is the method of education to take the child or the undeveloped adult — isolated intellectually and morally from his fellow-beings — and to develop him into a well-balanced social member, a successful worker, and an intelligent and law-supporting citizen; in other words, to develop individuality into personality in its complete and true meaning.

Means.—The means by which education endeavors to attain its object are (1) study, in its broad meaning, including not only what is gained from books, but from Nature also; (2) contact with other personalities; (3) and practical work. These have reference to conscious efforts put forth to influence the growth of the student. There are a multitude of other influences bearing upon him, which can be treated only incidentally, though they are too important to be altogether ignored. In short, education is the

product of all the developing influences with which we come in contact, whether physical, intellectual, or moral; at home, in school, in church, in social life; or whatever or wherever they may be; but the great determinative factors are the first three mentioned above.

Summary.—Such is, in substance, the philosophy of education. Natural in principles, scientific in method, and comprehensive in means, it turns its face upon the highest features of human life and places emphasis upon the most beneficent principles of human action. We multiply words without knowledge, to speak of religious education; for all true education is intrinsically religious. And to say that a man may be fully educated and yet be a fit candidate for the penitentiary, is a contradiction in terms. It can not be. It is not a lesser paradox to say that a student has completed his education, but has no life work in view. The very fact of education presupposes a life work. Nor is it consistent to call that a complete education which prepares one, however effectually, for a profession that is, on the whole, detrimental to the best interests of his fellow-men. Such a preparation is antagonistic to the central

purpose of education. It is absolutely and scientifically impossible that he who aims at purely selfish advancement can ever reach the highest forms of personality or attain to the highest degree of success. The forces of education can not act naturally and freely upon such an individual.

Our Educational Work Disconnected.—

This being the basis upon which our educational institutions ought to be founded and in accordance with which our educational curricula ought to be mapped out, it remains for us to inquire whether present day education has been built rationally upon these fundamental principles; and if it has not, how far it has departed from the true lines. It might well have been taken for granted that, with our wonderful progress along almost every great line of human activity, our educators had become familiar with all the great principles of education, were it not that observation and experience most decidedly negative the inference. If the great outlines of the stages of life-development were generally comprehended, we might reasonably expect to find the courses of study in our educational institutions symmetri-

cally adjusted and working together in harmonious relationship. On the contrary, what do we find? Here, a controversy between the high schools and the colleges concerning what specific preparation in languages, mathematics, or the sciences, the colleges will accept for entrance requirements — as though the reputation of these institutions were the only thing to be taken into consideration — there, a conference of teachers, now primary, now secondary, now collegiate, discussing the enlargement of the curriculum and the possibility of squeezing more work into the already over-crowded period — tacitly proclaiming knowledge to be the chief aim of educational effort! Again, the conflict rages around the attempted ejection of certain traditional studies from the curriculum, and the forces struggle furiously, for tradition wields a mightier scepter than a czar, and its dynasties, in spite of the opposition of philosophy and experience, often maintain themselves for centuries. And, now and then, a group of pedagogic leaders meet and draw up a code of study, in which each specialist usually succeeds in having assigned about one-third or one-fourth more work than the student can pos-

sibly accomplish in the allotted time — for most specialists can not comprehend why their own specialty is not as easy for everyone else as it is for themselves, nor do a considerable number of them seem to realize that education, especially primary and secondary education, is more than an acquaintanceship with the rudiments of those specialties which are most common.

Organic Basis of Study.— With so much of this so-called education all around us the thoughtful observer can not help crying out: “What part is the student to play in this life-building drama? For whose benefit is the drama being enacted? Let the leading character play his part.” It would be most graciously charitable to assert that the leading character has always been the hero of the play. Be that as it may. The fact remains that past educational methods have not been altogether in harmony with the natural development of the student. Methods suited chiefly to the demands of our educational agencies, in reputation, tradition, convenience, or abstract philosophy, have been introduced and rigorously wrought out, while the principles underlying the determination

and growth of student character into fullness of personality for life work have been far too often treated as a secondary consideration. The problem of student life will never be solved until the needs of the student are made paramount to everything else, and attention is concentrated on the laws of his development. *The student himself, considered with reference to his individuality, his environments, the laws of his development, and the forces of education best suited to these conditions, constitutes the organic basis of educational institutions, the sine qua non of the educational process.*

Fundamental Principles of Organic System.—

The construction of an organic scheme of study will at once become a problem capable of scientific solution when we shall recognize in our educational practice the following fundamental propositions: (1) That there is a divine purpose permeating and guiding human society; (2) that each human life is, or ought to be, the embodiment of a divine purpose in harmony with the divine social purpose; (3) that education means the full development of the individual for a life work in harmo-

nious correspondence with the social purpose; (4) that each character can be fully developed only along its natural lines and at its own rate of growth; (5) that the material comprising the directive influence of education, and particularly the study material of school life, be adjusted in proportion to the relative value of each subject to the welfare of society at large and to the individual student in particular. There is nothing abstruse or arbitrary or illogical in these propositions. They necessarily involve each other and throw light on each other. They are organic, and the problem of dealing with them is a problem for scientific solution.

CHAPTER IV.

THE ORGANIC STRUCTURE OF STUDY

Three Great Lines of Inquiry.—Having determined in a general way the outline features of the basis upon which a complete system of study extending through the whole period of student life must be established, and the fundamental propositions involved, we have now to inquire more at length by what principles the study material of education can be rationally constructed upon this basis, and by what principles our educational institutions can map out courses of study with a scientific certainty that they are meeting the needs of their students in full correspondence with the organic phases of life development, as particularly manifested during the student period. To this end, let us consider the chief aim, the great stages, and the great departments of study.

Chief Aim of Study.—**Basic Principle.**—There is a wide difference in practice, as well as in beliefs,

as to the chief aim of study. That there is confusion among the educational conceptions of study is apparent, for conflict of practices is indicative of conflict of beliefs in educational lines just as in other lines. Here, as in most other cases where conflicts arise, each party has seized upon a part and mistaken it for the whole. To be certain that we know the central purpose of study we must be certain that we know what is the central purpose of life and how study can most effectively succeed in achieving that great life purpose. The philosophy of study is a chapter in the philosophy of life. To understand clearly the chapter it is necessary to comprehend the whole work. The basic principle of the science of study is found in this philosophic conception, the lack of which has led to the conflicting notions and practices of study. A few instances will illustrate.

Knowledge.—It is by no means an uncommon belief that the chief aim of study is the acquisition of knowledge. By this is meant not merely the so-called “practical” knowledge, but also whatever knowledge will conduce to fullness of equipment for active life work. No one will deny

that such an equipment is one of the great purposes of study; but is it the dominant central purpose? We have only to inquire what is essential to develop completeness of life. Can this be accomplished by making all things else subordinate to the development of intellect? The fallacy of such an attempt has already been shown in a previous chapter in the case of the extreme evolutionists, and if further proof is desired, we need only to look around us anywhere to discover that accumulation of knowledge does not necessarily involve accumulation of character. True study does, however, involve a rational and steady growth of all those life forces that contribute to virtue of conduct and effectiveness of action. There is a greater aim in study than the mere accumulation of information, however valuable that may be.

Intellectual Discipline.— Certain educators hold that the highest value of study is in the intellectual discipline that it affords. It is not disputed that the discipline gained from the study of mathematics is highly valuable in all matters involving a necessary conclusion from given premises. It is also conceded that the discipline gained from

the study of the physical sciences is of considerable worth in determining questions of simple causation. Nor will it be denied that the biological sciences and historical studies are of inestimable importance in disciplining for all those great problems of practical life in which a multiplicity of factors are intricately complicated. Right thinking depends upon right habits of thought, and right habits of thought, partly inherited, depend in part upon the discipline gained by study. Yet such discipline is not the determinative aim of study, for while it will undoubtedly secure a high degree of intellectual power, it does not guarantee at all the culture of the emotional and moral elements of personality. There is more than intellectual discipline in study. The term "discipline" is used by some in the broader sense of character-culture, and in this latter sense is in accord with the best educational thought.

Æsthetic Culture.—Others look upon study as a means by which they may attain a high degree of æsthetic culture, popularly known under that indefinite and much-abused term "a liberal education." To cultivate the æsthetic nature is wise, and is essential to a rounded development of in-

dividuality; but to make the æsthetic aim the supreme aim is to make the end of study simply selfish enjoyment — even though it be one of the higher forms of selfishness. The chief aim of study can never be a selfish aim.

Social Standing.—Still others study for social standing, just to become cultured members in the circles of an exclusive aristocracy. To call this a theory of study would hardly be proper. It is simply a tacit practice, but, nevertheless, a practice of considerable extent. Yet there is no imminent danger of having the true aim of study overthrown by any class bias, be it ever so strong. The spirit of equality too thoroughly permeates our atmosphere ever to permit an aristocracy of education, or even to give respectability to the notion that study is the means of creating a separate and aristocratic class. Social standing is entirely proper in its place, when it is the mark of a person's real influence for the upbuilding of society; and when sought for this purpose it is an entirely worthy aim. An immense amount of good may be achieved through the social position in which a good education, coupled with a fair

natural ability, will place one. But this can only be a subordinate aim.

Fullness of Personality.—In what, then, consists the chief aim of study? Not in knowledge, not in intellectual discipline, not in æsthetic culture, not in social standing — not in any of these alone; but in such a richness of being and in such a high organization of self-activities as will eventually bring the student into fullness of life in the peculiar sphere of his own personality. Those who place scholarship as the chief aim of study might readily observe that scholarship alone may become simply a sharpened tool in the service of an evil purpose, which is antagonistic to the central purpose of education. Many of the convicts in our state prisons today, and many others, who ought to be there, are men of no inconsiderable learning; and every attempt to help them by cultivating their intellectual parts without attempting to change the motive power that guides the intellect is simply adding so many units of energy to their power of destructiveness. The same is true of intellectual discipline. While those who see in æsthetic culture or in social standing the culmination of study, overlook the great fact that educa-

tion fundamentally involves full preparation for a life work that shall be in harmony with the best interests of one's fellow-men, and not for a work or a condition that is intrinsically and necessarily selfish. That is not a complete system of study which does not reach all the powers of the student and develop them into an organic whole with respect to social welfare and in accordance with the natural bent of the inherent self-activities. How far the prevailing methods of study are from coming up to this completeness of conception may be easily tested by inquiring at random what pupil in this school or in that school is the best *student*, and almost invariably will be pointed out the best *scholar*. In fact, common acceptance holds the terms "student" and "scholar" synonymous. This is erroneous and shows a vagueness of conception in regard to the true scope of study. The successful student is a successful scholar; but he is more than a successful scholar, just as the human mind is more than intellect. He ranks high not only in loftiness and keenness of intellect, but also in richness of emotion and in virtue of will — in truth, he is coming into maturity of manhood. The chief aim of study is an organic product — a

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personality thoroughly equipped for its own peculiar life work.

True Scheme of Study is Organic.—A true scheme of study aiming at an organic product is in itself organic. It is psychological in basis; it is founded on the principles of the human mind. It is philosophical in structure; its component parts are mutually interrelated and follow each other in logical sequence. It is, as far as practicable, individual in application and aims at the development of complete personality. It is sociological in scope, and seeks to relate the student to the highest interests of his social environments. There is no limit to its depth and breadth and richness except the limits of the student's capacity and opportunities. Yet, with all the breadth, with all the depth, and with all the richness which a course of study may contain, there is, from beginning to end, no room for irrelevant material of any sort whatever. Comprehensive in reach, multifiform in material, and extended in time, there is still permeating it all, a common affinity relating and organizing the mass into a body of material possessed of organic vitality and character color.

Correlation of Studies.—The phases of correlation of studies have never been better stated than in the report of the Committee of Fifteen on Correlation of Studies:

* “First, the arrangement of topics in proper sequence in the course of study, in such a manner that each branch develops in an order suited to the natural and easy progress of the child, and so that each step is taken at the proper time to help his advance to the next step in the same branch, or to the next steps in other related branches of the course of study.

“Second, the adjustment of the branches of study in such a manner that the whole course at any given time represents all the great divisions of human learning, as far as is possible at the stage of maturity at which the pupil has arrived, and that each allied group of studies is represented by some one of its branches best adapted for the epoch in question; it being implied that there is an equiva-

* Report of Committee of Fifteen on Correlation of Studies, p. 1.

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lence of studies to a greater or less degree within each group, and that each branch of human learning should be represented by some equivalent study ; so that, while no great division is left unrepresented, no group shall have superfluous representatives and thereby debar other groups from proper representation.

“ Third, the selection and arrangement of the branches and topics within each branch considered psychologically with a view to afford the best exercise of the faculties of the mind, and to secure the unfolding of those faculties in the natural order, so that no one faculty is so overcultivated or so neglected as to produce abnormal or one-sided mental development.

“ Fourth and chiefly, your Committee understands by correlation of studies the selection and arrangement in orderly sequence of such objects of study as shall give the child an insight into the world that he lives in, and a command over its resources such as is obtained by a helpful coöperation with one’s fellows. In a word, the chief consideration to which all others are to be subordinated, in the

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opinion of your Committee, is this requirement of the civilization into which the child is born, as determining not only what he shall study in school, but what habits and customs he shall be taught in the family before the school age arrives; as well as that he shall acquire a skilled acquaintance with some one of a definite series of trades, professions, or vocations in the years that follow school; and, furthermore, that this question of the relation of the pupil to his civilization determines what political duties he shall assume and what religious faith or spiritual aspirations shall be adopted for the conduct of life."

Summary of Correlation Values.—So, a true course of study is organic (1) with reference to the inter-relations of its branches; (2) with reference to the relation of its material to the student as a being whose development is regulated by certain well-defined laws; and (3) with reference to the relation of the student to society at large.

Correlation Increases with The Higher Life.—That many studies are mutually related, is generally recognized. It is impossible to get the most out

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of any one study without combining with it several others. This is notably the case with history, geography, and literature; but it is, by no means, confined to these. Fullness and richness in all departments of study depend upon the ability and opportunity of the student to gather from their varied sources all things that bear materially upon the subject in hand, and to relate them to it in such a way that he may perceive the subject in its totality. The primitive Papuan savage who builds his house in the tree-tops perceives that there is such an institution as a home, but he knows it chiefly as a place of refuge. He does not think of it with the varied emotions that we experience when we look upon it as the dearest spot on earth, the seat of our earliest associations, the training-place of our youthful years, the center from which radiate those holy influences of affection and inspiration which strengthen and uplift as no other human forces can. And when we look abroad and see all over the land sons and daughters going out into the world from under the parental roof, one here, one there, one to yonder city, one to a far-away state, carrying with them the selfsame

stories learned at mother's knee and the selfsame code of ethics instilled through years of anxious, loving care, we behold in its full light the home as the great unifier of our diversified social life, the corner-stone of our magnificent political structure. The untutored Papuan cannot comprehend this wonderful grandeur and richness of the American home in its wholeness as it sends its countless streams of vivifying influence into every field of human action and binds together with cords of steel the workers in every walk of life. The very barrenness of his environments renders impossible such a conception. There is nothing in his experience from which his imagination could form such a picture.

And so it is with the student. When he begins his studies he is like the primitive Papuan in the crudeness and simplicity of his conceptions. But as he advances in his work and his increasing experience reaches out into an ever-broadening range of life, detecting more and more the complex network of underlying ties between seemingly unrelated things, and learning to sift a multiplicity of factors to find the dominating cause whenever an effect is observed, he is

beginning to grasp the universal correlation of things and is, indeed, coming into completeness of mental vision. This attitude of mind is, to some extent, a natural gift; but it may be greatly developed by education, and in so far as this may be done by study it is accomplished by broad-minded teachers and by scholarly text-books, for the chief intellectual worth of both teachers and books consists in the vividness with which they illumine the subject in all its important bearings, so that at the close it stands out clear and distinct in its organic relations.

Complete Scheme of Study.—Preliminary General View.—The phase of study, however, which is of chief concern in this connection, is the general outline of the whole scheme of study from the beginning of school life until the entrance of the student into professional life.

* “The distinctions that have been made between the various types of education — represented by the term elementary, grammar, high

* J. J. Findlay in Report of Royal Commission on Secondary Schools, quoted in report of U. S. Commissioner of Education, 1894-95.

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school and the like — are distinctions which only have a right foundation so far as they discriminate the various stages in the one educational process from childhood to manhood; so far as they have separated teachers into classes they are the result of earlier imperfect conceptions of education which have an historical basis, but no basis in sound thinking. There is little in the nature of things to justify the barriers erected by school laws and by custom between one section of teachers and another. I call particular attention to this doctrine because it has been reinforced by the movements which are now taking place in American education."

Before the educator can map out intelligently a course of study he must have a clear conception of the general outline of the entire work that lies before the student up to his entrance into professional life. Before he can with wisdom take a further step toward building up the student's life character he must know how much of his education the student has now completed and in what stage of his growth the student now is.

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These two propositions may seem quite simple, but they involve a great deal. They take hold upon the very foundations of life development. The general outline of the structure of study will be sketched briefly here, taking it up more at length in succeeding chapters.

Great Divisions of Study.—Study in its relation to the student as a being whose development is regulated by certain well-defined laws resolves itself into six great departments, four of which — general foundation study, leading study, professional preparatory study, and professional study — follow logically in the order named and may be termed the great stages of study; while the other two departments — semi-professional study and general culture study — are complementary and run parallel to the last two departments mentioned above. The accompanying diagram will show the general structure:

COMPLETE SCHEME OF STUDY.

MAIN WORK:

COMPLEMENTARY WORK:

1. General Foundation Study (a).....
2. Leading Study (b).....

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3. Professional Preparatory Study (c)..... { Semi-professional Study (e)
and
General Culture Study (f).
4. Professional Study (d).. { Semi-professional Study (e)
and
General Culture Study (f).

Departments and Stages Distinguished.— So, while there are six great departments in the structure of study, which are lettered (a), (b), (c), (d), (e), (f), there are only four great stages in the process, those numbered 1, 2, 3, 4. This distinction between departments and stages must not be overlooked. A vast deal of the looseness and waste which characterize much of our efforts toward education both at home and in school is due to a vagueness on this very point. When a contractor undertakes the erection of one of our large business buildings he does not make his estimates in a general way with a misty panorama of a massive stone structure looming up before him. Not at all. He goes about it very definitely. He separates the proposed structure into its parts. He figures on the cost of the foundation, of the framework, of the filling in of the framework, of the ornamental and other parts essential to the complete structure — not neces-

sarily in this exact order, but with this exactness of detail. It is not possible to furnish a complete parallel between building a house and building a character, but the comparison is, at least, significant.

General Foundation Study and General Culture Study Distinguished.—It is essential that those who are to direct the education of our youth shall ascertain with somewhat of precision what should constitute the general foundation study. In doing this they must distinguish clearly between general foundation study and general culture study. Common usage is quite at sea here. Indeed, if a pertinent criticism upon the work of a great-majority of our institutions of learning may be permitted, it is that they are trying to do the work of both these departments together. This cannot be done with the highest degree of success. It is an abnormal arrangement. The vital distinction between these departments is that *general foundation study* works upon the student *while his peculiar powers are yet undeveloped and his needs are largely in common with his fellow students; and it seeks to cultivate those*

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powers that he possesses in common with all others, and to furnish him with such information as is of universal value. On the other hand, general culture study in its true meaning presupposes an already developed purpose that is dominating the student's life and tending to narrow it, which narrowness it is the function of such study to regulate and to fill out to the full measure of his mental stature. This will suggest the natural order of these departments.

General Foundation Stage.—General foundation study, beginning with the first efforts of childhood, should continue until the natural bent of the student for a particular kind of knowledge begins to manifest itself.

Leading Stage.—At this point it is the function of the course of leading study to take up the work, furnishing all the essential elements of general foundation study, but with emphasis upon the student's favored branches, its object being to draw out the peculiar powers of the student by feeding him that educational food upon which he is best fitted to grow, and in such increasing proportion of favored work as his evolving character will call for from time to time.

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Five Grand Divisions of Knowledge.—The elements of universal knowledge, which general foundation study should contain in the proportion of their relative general values, and leading study in a proportion varying according to the individual needs of the student, may be classed under five great heads — (1) Mathematics; (2) Science; (3) History, including the various phases of social life and the personal element in literature; (4) Language and Philosophy, including the technical part of literature and Mental and Moral Philosophy; (5) Æsthetics, including Music, Art, and the æsthetic part of literature. These constitute the five grand divisions of study, and an acquaintance with the general principles of each division is necessary to a balanced development of character.

Basis of Above Classification.—The philosophical reason for the above classification may be stated very briefly. The supreme aim of intellectual development is to make the human mind as nearly as possible like the Infinite mind — in other words, to comprehend the universe in its fundamental phases. We may classify the universe into the world of nature and the world of

man; and upon these worlds the human mind looks through five avenues. Or, it would be more strictly accurate to say that there are five great phases of universal existence, and that a complete scheme of study must provide for a reasonable acquaintance with each phase. These phases are, in the world of nature, (1) time and space, imaginary existences in nature — dealt with in arithmetic, algebra, and geometry; (2) the real, concrete existences in nature — dealt with in physiology, zoology, botany, physical geography, physics, and chemistry; in the world of man; (3) the will, the motive power of character as a factor in human progress — dealt with in history, science of government, and that part of literature which involves a personal element; (4) the intellect in its technical workings and structure, the internal view of the character machine — dealt with in the study of the languages, grammar, rhetoric, logic, and mental and moral philosophy; (5) the æsthetic side, the tonality, coloring, and symmetry of character — dealt with in music, art, and the æsthetic part of literature.

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Arrangement of Courses of Study.—It is not expected that every study just named shall be included in the courses of general foundation study and leading study. Just how much of this can wisely be taken must be determined by the logic of local possibilities and by the degree of maturity of the student's mind at this period of life. However, each great group should be represented liberally by those of its studies which are within the mental grasp of the student. The representative studies which are beyond his reach in these early stages may be taken later if desired. There should be liberal provision for such an arrangement.

Passage from Leading Stage to Professional Preparatory Stage.—When shall leading study leave off and professional preparatory study begin? Usually, as soon as it is evident to the teacher that the student sees with clearness the profession of his choice. The length of the leading study period varies somewhat with different students, but the large majority probably require about two years' work of a maturity equivalent to the work done in the last two years of the better grade of high schools. This appears to be the

experience of many of our best educators. Still, the limits are flexible and must eventually be determined partly by the student himself through introspection into his own development and partly by the judgment of the teacher. This must be taken with the qualification given later, that two years' work or the equivalent should be the minimum requirement.

Principles Determining Quantity of Work for Professional Preparatory and Professional Stages.—With professional preparatory study and also with professional study the standard as to length of time required is also flexible; but its flexibility depends upon the nature of the profession as well as upon the nature of the student. Some professions require more extensive and deeper foundations than do others. For the sake of illustrating this difference we may classify the most common professions into (1) the intellectual—including teaching, law, the ministry, journalism, and statecraft; (2) the industrial—including agriculture and business; (3) the scientific—including medicine, engineering, and architecture; (4) the æsthetic—including music and art. The principles of study for each of these profes-

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sions, as well as the character and quantity of material, will be noticed later on. Suffice it here to point out that the "intellectual" professions are generally conceded to require a period of preparation extending through a longer time than do the others, with the exception of the medical profession. The terms employed here do not, of course, imply that the last three groups are not of an intellectual nature, but that in the first group we deal more exclusively with intellectual productions than with any other kind. So the name of each of the other groups suggests its dominant phase.

Summary of Principles Governing Each Stage.—General Foundation Study.—Summing up, general foundation study should furnish a thorough grounding in all the essential elements of universal knowledge, in a proportion adjusted to their relative character-building values. Experience has shown that the quantity of material necessary for this should be equivalent to the work of the grammar school and the first two years of the better grade of high schools. Where the student has kept pace with the work as laid down in graded schools this stage may be finished

by the age of sixteen; and if the high school course should begin with the seventh grade, as it ought, then this stage of general foundation study might be finished at the age of fourteen. If there are in the student any strong germs of individuality, they will, as a rule, begin to make some manifestations of their existence by this time.

Leading Study.—These manifestations will appear at first only in a general way, and need a judicious course of leading study to lead them out into definiteness. For instance, the future clergyman will probably evince a liking for the historical or language groups before he can reasonably be expected to know what he wants to do for a life work. Yet, as these groups are the great foundation stones of the ministry, as well as of the other “intellectual” professions, they furnish the very best material for nourishing and drawing out his intuitive want into a substantial reality with clearly defined limits. The intuitive preference, in this case, for history or language is good evidence that the student’s future profession is one of those that are built up mainly from historical or language foundations. What pro-

fession is the destined one, it is the purpose of the course of leading study to determine. As soon as this is ascertained its purpose is accomplished. The length of time required for this will vary somewhat with different students, since some natures develop more rapidly and others more slowly than the average; but, as stated before, the average student will, under present conditions, probably require an amount of leading study equivalent to the work of the last two years of our better class of high schools — best secured at present, it is believed, for the majority of students in the schools, between the ages of sixteen and eighteen; eventually, under closely organized courses of study, between fourteen and sixteen.

Professional Preparatory Study.—When the course of leading study has revealed the particular profession for which the student possesses a latent capacity, it is the function of the professional preparatory course to furnish an organic basis upon which a thorough professional course can later be laid — a basis broad and solid in those studies which are correlated with and naturally precedent to the studies of the strictly pro-

fessional course. In the case of the law student, the course preparatory to the professional course should include English Literature and oratorical work, Latin, French, Logic, Ethics, the Social, Sanitary, and Economic Sciences, Political and Constitutional History, and Political Science.

Application of Principles Determining Length of Professional Preparatory and Professional Study.

(1) "Intellectual" Professions.—The time required for professional preparatory study and for professional study has been found somewhat variable with the different professions. In the "intellectual" professions of teaching, law, the ministry, and journalism, the trend of our most progressive educators is toward the belief that the most satisfactory results are to be reached by a three years' course of professional preparatory training, followed by three years of professional training. This will permit the student who has kept pace with school grades to take up his life work at the age of twenty-four, which is as early as is possible under existing educational and social conditions. As previously pointed out this may be shortened two years still, by a closer organization of elementary and secondary schools, making

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it possible for the student to enter upon his life work at the age of twenty-two, better trained and better prepared for life, in every respect, than at present.

(2) **Scientific Professions.**—In the professions of a scientific nature, especially engineering and architecture, and in agriculture, where the sweep of intellectuality is not so comprehensive, but where a high degree of technical skill is required, it seems to be the most practicable plan to combine both courses in a professional course of four years in which course the first two years are, to all practical intents, special preparatory work. Medicine, from a scientific standpoint, might be classed with these last; but the science of medicine is so intricate and comprehensive, and is charged with so direct and momentous a responsibility for our very existence, that it demands extensive training. For these reasons it ought to be placed in the group with law and the ministry, with respect to quantity of training required.

(3) **Business.**—It is to be regretted that our higher institutions, with one or two exceptions, give us no models for the complete education of business men. True, there are a multitude of

Business Colleges — so called — but they are only working away at the impossible problem of breathing fullness of life into the dry bones of six months' technicalities. The qualified man of business ought to be versed in Finance, in the science of Money, in Physics, in Chemistry, in the great Industrial problems, in the intricacies of Commercial Geography, in Municipal Government, and in all our international relations which so vitally affect him.

(4) **Music and Art.**— As for the æsthetic professions of music and art, the special powers begin to manifest themselves at so early an age that there is usually no call for leading study in their cases. Their professional preparatory course thus runs parallel with the latter part of their general foundation study. Because of this narrowing influence upon general foundation work, most musical institutions have seen fit to insist that the foundation course for their students be extended two years beyond the normal period and be made to include the period that shall ordinarily be occupied in leading study by the students for other professions. This is undoubtedly a wise requirement, and is applicable as well to artist stu-

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dents. A four years' professional course is usually found necessary in the best conservatories of music, and as soon as we shall have institutions of equal merit in art culture, an equivalent course of training will doubtless be found advisable in art.

Semi-Professional Study.—It is sufficient here merely to point out the position of semi-professional study in the general outline, since it will be noticed more at length in the chapters on professional preparatory and professional study. This is a department of study often ignored, and almost never pursued in a systematic way, much less with a full conception of its organic relation to the complete education of the student.

(1) **Basis.**—And it owes its position, not to the arbitrary creation of certain theoretical reasoners or of any system of abstract philosophy, but it is based on the actual constitution of that social life amid which the student must eventually work out his life purposes. Even a very little of sociological knowledge will make clear the significance of this particular department as relating both to the student's ultimate professional success from a personal standpoint, and to his obligations for

the betterment of his fellow-men along the lines in which he is best fitted by nature to act. But more on this later.

General Culture Study.—With regard to general culture study, the character of the material depends upon the nature of the individual student; and the quantity of material, upon the narrowness or breadth of his main course of study, beginning when leading study leaves off, and complementing the specialistic and narrowing tendencies of professional preparatory and professional study. Just because general culture study is complementary work, we are not justified in the conclusion, sometimes drawn, that it has not a distinct and important function to perform in education.

(1) **Fundamental Purpose.**—Its fundamental purpose is to furnish material in those grand divisions of study which may not be represented in the professional preparatory and professional courses, and thus to keep the student in completeness of mental vision. In this completeness of mental vision, this comprehensiveness of interest, lies one great source of the richness and power of character. A vital defect in our present system of

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higher education is that it fails, in most cases, to make provision in its courses for this complementary culture, so absolutely essential to fullness of character. How seldom do we find a great specialist who is correspondingly great in personal influence and inspiration! Such personal defect is partly natural; but it is, in a considerable degree, the logical result of incomplete education. Character, not intellect, is the all-dominating aim of study. General culture study must be mapped out with the same philosophic conception that is brought to bear on the other great departments of study, so that the entire system of study from beginning to end shall be organic — connected philosophically, and not in that “catch-as-catch-can” relation existing under the scheme of classification now in vogue.

CHAPTER V.

THE GENERAL FOUNDATION STAGE

Conflicting Conceptions of Complete Scheme of Study.—After what has been said of the general structure of the whole course of study and of the functions of each department, it would be unnecessary to touch upon this more at length were it not for the multiplicity of conflicting conceptions that exist as to what constitutes a complete scheme of study. These conceptions range through all shades of variety from the so-called practical educator who, in his short-sightedness, overlooking both the possibilities of the student and the true relation of study to a realization of these possibilities, finds a sufficient preparation for life work in the three R's, to the radical collegian who in his intemperate zeal for a high standard of development, by insisting upon a full four years' college course as simply general foundation study, ignores or does not perceive the limitations of the student, psychologically and so-

ciologically. The intensely "practical" youth wants to learn how to read and write and cipher; and as soon as he can do this, he leaves school and goes to work. A large proportion of students are anxious to complete the common school course, but beyond it they see no value in schooling. In those localities where the advantages of high schools are obtainable, they are looked upon by the majority as the culmination of educative efforts — witness the popularity and significance of the high school "Commencement." A certain class, especially the moderately ambitious self-supporting students, take an abbreviated course at one of the numerous private Normal Schools and enter into their work fully prepared — in their own estimation. Others go from the common school or from the high school directly into the professional school. Still others spend full time in college, but make the last two years preparatory to the professional course. In a few colleges the student is allowed to select his whole course with reference to fullness and richness of subsequent professional study. While those students who follow implicitly the dicta of the conservative classical educators, take their whole

training to the end of the college course, as simply general foundation work.

Due to Defective Understanding of Principles of Study.—In the midst of this chaos of conceptions many have been led to ask whether there is really a Science of Study; whether there are any fundamental and unchangeable principles in accordance with which a complete scheme of study may be mapped out with a scientific assurance that it is fully adapted to our needs. This has already been answered in the affirmative; and if these conceptions are sifted, it is found that their variance is due largely to a lack of understanding of the principles underlying the organic structure of study as pointed out in the preceding chapter. Since there can be no question that it is possible to construct a rational scheme of school work based upon the great stages of life unfoldment during the student period and having direct reference to the great departments of social activity which the student will be expected to deal with successfully if he is ever to enter into complete realization of himself, let us proceed more particularly to the stages and departments of such a scheme. To this end it is not necessary to en-

ter into a lengthy discussion of all the features of curricula making. Nothing more will be attempted than to present the outline principles, leaving each educational worker to fill in the details from his own experience and observation.

Function.— The function of general foundation study, as previously defined, is to deal with the student while his peculiar powers are yet undeveloped and his needs are largely in common with his fellow-students; to cultivate those powers which he possesses in common with his fellow-students and to furnish him with such information as is of general value. In short, this stage ought to furnish a general foundation for the full development of whatever activities are inherent in the student.

Two Classes of Students.— In this connection comes, what some consider, one of the most difficult problems in the whole range of educational practice. This stage must deal with two classes of students whose respective interests are apparently antagonistic. The one class is composed of those who intend to complete the entire course of study; the other class, of those who will drop their studies absolutely by the close of this stage

and enter into life work as day laborers or as members of the various trades. Various propositions have been offered to do away with this supposed antagonism. Separate schools have been suggested. Less radical reformers have proposed separate courses.

* "Your committee has not been able to agree on the question whether pupils who leave school early should have a course of study different from the course of those who are to continue on into secondary and higher work. It is contended, on the one hand, that those who leave early should have a more practical course, and that they should dispense with those studies that seem to be in the nature of preparatory work for secondary and higher education. Such studies as Algebra and Latin, for example, should not be taken up unless the pupil expects to pursue the same for a sufficient time to complete the secondary course. It is replied, on the other hand, that it is best to have one course for all, because any school education is at best an initiation for the pupil into the art of learning, and that

* Report of Committee of Fifteen, p. 60.

wherever he leaves off in his school course he should continue, by the aid of the public library and home study, in the work of mastering science and literature. It is further contended that a brief course in higher studies, like Latin and Algebra, instead of being useless, is of more value than any elementary studies that might replace them."

The leading representative of the Herbartians has stated the position of that great school of thinkers, on this question, succinctly and with characteristic clearness.

* "The common school, more than all other institutions, should lay broad foundations and awaken many-sided sympathies. The trade school and the university can afford to specialize to prepare for a vocation. The common school, on the contrary, is preparing all children for general citizenship. The narrowing idea of a trade or calling should be kept away from the public school, and as far as possible, varied interests in knowledge should be awakened in every child."

* McMurry, General Method, p. 80.

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After all, is there really a conflict of interests between the two classes of students? Both have wills, intellects, emotions. Both have character capacity. Both are susceptible to discipline and information, varying in degree, of course, but along the same general lines of physiological and psychological development. Both are subjects of the same country, under the same laws, and exercising the same rights of citizenship. Both are members of society, under the same social and business and moral customs. Indeed, their general interests, personally and socially, are identical. Beyond these general interests general foundation study does not attempt to go. And beyond them it ought not to go.

Studies.—Then, what studies will best give this general training, and, in what proportion ought they to be distributed to secure the best character results at the close of this stage?

Distribution of Five Grand Divisions.—Accepting the classification of the elements of universal knowledge into five grand divisions, History, Science, Mathematics, Language, and Æsthetics, each of these divisions will be represented in the general foundation curriculum. No experienced

horticulturist expects his plants to grow into completeness unless they are furnished with all the elements of plant life. Neither can we expect the student to develop normally unless he is furnished with all the elements of character culture. Granting, then, that we draw upon these five grand divisions, in what proportion shall they be distributed? It was once held that all subjects are equally of educative value. But experience has amply proved that there are decided differences of result, in discipline, in serviceable knowledge, and in moral culture. It is asked on what basis educational values should be graded. On intellectual discipline? No. On knowledge? No. On moral culture? No. Not on any of these bases alone; but on the basis of completeness of life-giving forces. Studies ought to be given preference in the order in which they furnish, or most nearly approach, completeness of correspondence to all the character powers of the student.

Relative Values of Studies.—Educators are far from being unanimous in respect to the relative values of the several branches of study. In fact, there is probably no great school problem

about which more radical difference of opinion is held. These conflicting schools may be separated, in a general way, into two great classes of thinkers, those who lay chief stress upon disciplinary values, and those who look chiefly to content values. Perhaps, we cannot do better than to summarize their respective positions, as stated by eminent thinkers of each class.

Disciplinary View.—The grounds held by those who emphasize the disciplinary values of studies are set forth with such admirable and unrivalled clearness in the report of the Committee of Fifteen on the Correlation of Studies that it has seemed best to give its exposition in considerable fullness on the following pages:

Language.—* “ There is first to be noted the prominent place of language study that takes the form of reading, penmanship, and grammar in the first eight years’ work of the school. It is claimed for the partiality shown to these studies that it is justified by the fact that language is the instrument that makes possible human social organization. It enables each person to communicate his individual experi-

* Report of Committee of Fifteen, pp. 8, 9, 11.

ence to his fellows and thus permits each to profit by the experience of all. The written and printed forms of speech preserve human knowledge and make progress in civilization possible. The conclusion is reached that learning to read and write should be the leading study of the pupil in his first four years of school.

“Reading and writing are not so much ends in themselves as means for the acquirement of all other human learning. This consideration alone would be sufficient to justify their actual place in the work of the elementary school. But these branches require of the learner a difficult process of analysis. The pupil must identify the separate words in the sentence he uses, and in the next place must recognize the separate sounds in each word. It requires a considerable effort for the child or the savage to analyze his sentence into its constituent words, and a still greater effort to discriminate its elementary sounds. Reading, writing, and spelling, in their most elementary form, therefore, constitute a severe training in mental analysis for the child of six to ten

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years of age. We are told that it is far more disciplinary to the mind than any species of observation of differences among material things, because of the fact that the word has a two-fold character — addressed to the external sense as spoken sound to the ear, or as written and printed words to the eye — but containing a meaning or sense addressed to the understanding and only to be seized by introspection. The pupil must call up the corresponding idea by thought, memory, and imagination, or else the word will cease to be a word and remain only a sound or character.

“Your committee would sum up these considerations by saying that language rightfully forms the center of instruction in the elementary school, but that progress in methods of teaching is to be made, as hitherto, chiefly by laying more stress on the internal side of the word, its meaning; using better graded steps to build up the chain of experience or the train of thought that the word expresses.”

RELATIVE VALUES OF STUDIES

The committee would assign second place to mathematics :

Mathematics.—* “Side by side with language study is the study of mathematics in the schools, claiming the second place in importance of all studies. It has been pointed out that mathematics concerns the laws of time and space—their structural form, so to speak—and hence that it formulates the logical conditions of all matter both in rest and in motion. Be this as it may, the high plane of mathematics as the science of all quantity is universally acknowledged. . . . There are branches that develop or derive quantitative functions; say geometry for spatial forms and mechanics for movement and rest and the forces producing them. Other branches transform these quantitative functions into such forms as may be calculated in actual numbers; namely, algebra in its common or lower form, and in its higher form as the differential and integral calculus, and the calculus of variations. Arithmetic evalu-

* Report of Committee of Fifteen, pp. 19, 20.

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ates or finds the numerical value for the functions thus deduced and transformed. The educational value of arithmetic is thus indicated, both as concerns its psychological side and its objective practical uses in correlating man with the world of nature. In this latter respect, as furnishing the key to the outer world in so far as the objects of the latter are a matter of direct enumeration — capable of being counted — it is the first great step in the conquest of nature.

“It is the first tool of thought that man invents in the work of emancipating himself from the thralldom of external forces. For by the command of number he learns to divide and conquer. He can proportion one force to another, and concentrate against an obstacle precisely what is needed to overcome it. Number also makes possible all the other sciences of nature which depend on exact measurement and exact record of phenomena as to the following items: Order of succession, date, duration, locality, environment, extent of sphere of influence, number of manifestations, number of cases of intermittence. All these can be

defined accurately only by means of number. The educational value of a branch of study that furnishes the indispensable first step toward all science of nature is obvious."

Geography.—The third place in the curriculum is assigned to geography, with the qualification made later under the topic of History:

* "Following arithmetic as the second study in importance among the branches that correlate man to nature is geography. . . .

The educational value of geography as it is and has been in elementary schools is obviously very great. It makes possible something like accuracy in the picturing of distant places and events, and removes a large tract of mere superstition from the mind. In these days of newspaper reading one's stock of geographical information is in constant requisition. A war on the opposite side of the globe is followed with more interest in this year than a war near our own borderland before the era of the telegraph. The general knowledge of the location and boundaries of nations, of their status in civilization and their natural advan-

* Report of Committee of Fifteen, pp. 27, 29, 30.

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tages for contributing to the world market, is of great use to the citizen in forming correct ideas from his daily reading.

“The educational value of geography is even more apparent if we admit the claims of those who argue that the present epoch is the beginning of an era in which public opinion is organized into a ruling force by the agency of periodicals and books. Certainly neither the newspaper nor the book can influence an illiterate people; they can do little to form opinion where the readers have no knowledge of geography.

“As to the psychological value of geography little need be said. It exercises in manifold ways the memory of forms and the imagination; it brings into exercise the thinking power in tracing back toward unity the various series of causes. What educative value there is in geology, meteorology, zoology, ethnology, economics, history, and politics is to be found in the more profound study of geography, and, to a proportionate extent, in its merest elements.”

History.— It will be interesting to compare the value of history as stated here with the value as claimed by Herbartians. (Page 112 *seq.*)

* “The next study, ranked in order of value, for the elementary school is history. But, as will be seen, the value of history, both practically and psychologically, is less in the beginning and greater at the end than geography. For it relates to the institutions of men, and especially to the political state and its evolution. While biography narrates the career of the individual, civil history records the careers of nations. The nation has been compared to the individual by persons interested in the individual value of history. Man has two selves, they say, the individual self and the collective self of the organized state or union. The study of history is, then, the study of this larger, corporate, social, and civil self. The importance of this idea is thus brought out more clearly in its educational significance. For to learn this civil self is to learn the substantial condition which makes possible the existence of civilized man in all

* Report of Committee of Fifteen, pp. 32, 33.

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his other social combinations — the family, the Church, and the manifold associated activities of civil society. . . .

“History, in school, it is contended, should be the special branch for education in the duties of citizenship. There is ground for this claim. History gives a sense of belonging to a higher social unity which possesses the right of absolute control over person and property in the interest of the safety of the whole. This, of course, is the basis of citizenship; the individual must feel this or see this solidarity of the state and recognize its supreme authority. But history shows the collisions of nations, and the victory of one political idea accompanied by the defeat of another. History reveals an evolution of forms of government that are better and better adapted to permit individual freedom, and the participation of all citizens in the administration of the government itself.”

The Committee then takes up what may be termed, from its standpoint, the studies of secondary importance:

RELATIVE VALUES OF STUDIES

Studies of Secondary Importance.—* “It is clear that there are other branches of instruction that may lay claim to a place in the course of study of the elementary school; for example, the various branches of natural science, vocal music, manual training, physical culture, drawing, etc.

“In the first place, there is industrial and æsthetic drawing, which should have a place in all elementary school work. By it is secured the training of the hand and eye. Then, too, drawing helps in all the other branches that require illustration. Moreover, if used in the study of the great works of art in the way hereinbefore mentioned, it helps to cultivate the taste and prepare the future workman for a more useful and lucrative career, inasmuch as superior taste commands higher wages in the finishing of all goods.”

Compare the value of natural science as stated by the Committee of Fifteen with the value as claimed by Herbartians. (Page 112, *seq.*)

* Report of Committee of Fifteen, p. 38.

Natural Science.—* “Natural science claims a place in the elementary school, not so much as a disciplinary study side by side with grammar, arithmetic and history, as a training in habits of observation and in the use of the technique by which such sciences are expounded. With a knowledge of the technical terms and some training in the methods of original investigation employed in the sciences, the pupil broadens his views of the world and greatly increases his capacity to acquire new knowledge. For the pupil who is unacquainted with the technique of science has to pass without mental profit the numerous scientific allusions and items of information which more and more abound in all our literature, whether of an ephemeral or permanent character. In an age whose proudest boast is the progress of science in all domains, there should be in the elementary school, from the first, a course in the elements of the sciences. And this is quite possible; for each science possesses some phases that lie very near to the child’s life.”

* Report of Committee of Fifteen, pp. 38, 39, 42, 43.

“ It is understood by your Committee that the lessons in physiology and hygiene (with special reference to the effects of stimulants and narcotics) required by State laws should be included in the oral course in natural science. . . .

Manual Training.—“ Manual training, so far as theory and use of the tools for working in wood and iron are concerned, has just claims on the elementary school for a reason similar to that which admits natural science.”

Vocal Music.—“ Vocal music has long since obtained a well established place in all elementary schools. The labors of two generations of special teachers have reduced the steps of instruction to such simplicity that whole classes may make as regular progress in reading music as in reading literature.”

Physical Training.—“ Systematic physical training has for its object rather the will training than recreation, and this must not be forgotten. To go from a hard lesson to a series of calisthenic exercises is to go from one kind of will training to another. Exhaustion of the will should be fol-

lowed by the wild freedom and caprice of the recess. But systematic physical exercise has its sufficient reason in its aid to a graceful use of the limbs, its development of muscles that are left unused or rudimentary unless called forth by special training, and for the help it gives to the teacher in the way of school discipline.

Morals and Manners.—"Your Committee would mention, in this connection, instruction in morals and manners, which ought to be given in a brief series of lessons each year with the view to build up in the mind a theory of the conventionalities of polite and pure-minded society. . . . It is, of course, understood by your Committee that the substantial moral training of the school is performed by the discipline rather than by the instruction in ethical theory."

Herbartian View—**Three Classes of Studies.**—On the other hand, the Herbartians, who hold that the controlling aim of education should be moral, and that content values should determine the relative importance of the several branches of study, make a broad division of these branches into

three classes — history, the natural sciences, and the formal studies.

History.— * “ History, in our present sense, includes what we usually understand by it, as United States History, modern and ancient history, also biography, tradition, fiction as expressing human life, and the novel or romance, and historical and literary masterpieces of all sorts, as the drama and the epic poem, so far as they delineate man’s experience and character.”

The leading place in the curriculum must be given to the historical group, the Herbartians maintain, since it deals more comprehensively than any other group with the highest and most potent elements of life. They declare that all those general interests mentioned above, moral, intellectual, physical, and social, are involved in their natural and most fruitful relations. The biographical element in history and in literature will do more toward the formation of strong moral character than can all the other combined forces of study; and this, because in this stage of student life the student builds up his moral char-

* Chas. McMurry, *General Method*, p. 20.

acter chiefly in imitation of the forceful characters whom he meets in history or in actual life, and not from those dreaded ebullitions of moral platitudes which are so often sandwiched in with his instruction in other branches in order to fill up their natural lack of moral culture qualities. The potency of the historical group for intellectual culture is not inferior to that of either of the other groups. In comprehensiveness of vision, in humanity of sentiment, and in the loftiness of the ideals which it holds out, it stands unrivalled. In the invaluable art of forming keen, practical judgments upon the workings of complicated and contingent influences, such judgments as the successful worker finds indispensable in everyday life as well as in the weightiest moments of his career, it is unquestionably the most valuable group. The influence of historical studies upon the physical education of the student is a strong one. He discovers that the great personages of history have almost invariably been possessed of a seemingly inexhaustible fund of physical vitality; and this bit of suggestive information thus gained is, doubtless, one of the most stimulating factors which make for the phys-

ical education of the aspiring youth. To history, moreover, we must look for a broad and philosophical conception of society in its political, economic, literary, and religious aspects, locally, nationally, and universally. The thrilling stories of the origin of local self-governments in this country, of the building of nations and of our own in particular, and of those great movements that are bringing about the universal brotherhood of man, can not fail to be of profound benefit to those who will some day have charge of affairs.

Natural Science.—They hold that the value of natural science is second only to that of history, and withal a very close second. If we are to accept the fundamental truth that education is for life work and that success in life depends upon an accurate understanding of the conditions amid which we are to labor, then the natural sciences must be assigned a leading place in our courses of study. Herbert Spencer has stated the significance of scientific knowledge in a much-quoted passage from “Education”;

“For leaving out only some very small classes, what are all men employed in? They

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are employed in the production, preparation, and distribution of commodities. And on what does efficiency in the production, preparation, and distribution of commodities depend? It depends on the use of methods fitted to the respective nature of these commodities, it depends on an adequate knowledge of their physical, chemical, or vital properties, as the case may be; that is, it depends on science. This order of knowledge, which is in great part ignored in our school courses, is the order of knowledge underlying the right performance of all those processes by which civilized life is made possible. Undeniable as is this truth, and thrust upon us as it is at every turn there seems to be no living consciousness of it. Its very familiarity makes it unregarded. . . . All our industries would cease were it not for that information which men begin to acquire as they best may after their education is said to be finished. And were it not for this information that has been from age to age accumulated and spread by unofficial means, these industries would never have existed. Had there been no teaching but such

as is given in our public schools, England would now be what it was in feudal times. That increasing acquaintance with the laws of nature which has through successive ages enabled us to subjugate nature to our needs, and in these days gives to the common laborer comforts which a few centuries ago kings could not purchase, is scarcely in any degree owed to the appointed means of instructing our youth. The vital knowledge—that by which we have grown as a nation to what we are, and which now underlies our whole existence—is a knowledge that has got itself taught in nooks and corners, while the ordained agencies for teaching have been mumbling little else but dead formulas.”

Since Mr. Spencer made these observations there has come a great change in favor of scientific instruction; but there is still considerable room for improving our courses of study in this department. Scientific knowledge is necessary not only to industrial and national progress, it underlies as well all the fundamental operations of everyday life. Look about and you will witness on every side failures in measures relating to the

public welfare, in private occupations, and in physical health and strength, simply through ignorance of the regularly ordained workings of physical, chemical, and biological laws. If there is a preëminent feature, besides the moral difference, in which an enlightened nation is superior to a barbarian tribe, it is in the greater insight into nature and in the application of the laws of natural science to personal life building and to organized society building. So, in proportion as we form high ideals of our position in life, in that proportion ought we to ground ourselves in those scientific principles underlying and regulating human affairs. Otherwise it is idle to expect satisfactory results.

Natural science study is entitled to a higher standard of moral culture than is usually accorded it. It is through natural science that we are brought face to face with the Ruler of the universe in His visible manifestations. Here is supplemented the Revealed Word, here the mighty and eternal thoughts are written which hold within themselves to uplift and expand and enrich the earnest seeker after truth, and this to a degree utterly beyond the power of words

to circumscribe. No healthy mind can read further and further into the book of nature without becoming more and more imbued with profound reverence for the Author and without absorbing somewhat of that Divine beneficence which reaches out on every side to help our fellow-workers up to an ever higher, nobler life. True scientific study does not make atheists and pessimists; not at all. In truth, why should it? To paraphrase Dean Stanley's pertinent sarcasm, why should eating dinner cause one to doubt the existence of the cook? That some scientists have been pessimists and others atheists, does not militate against the moral culture power of science, any more than it militates against religion that some of the bloodiest and most awful crimes in all history have been committed in her name. There have been, and still are, mistakes and shortcomings in all departments of human experience. The day is rapidly drawing near when natural science will be universally recognized as possessing a rich and efficacious moral culture power for the student.

The chief disciplinary value of natural science lies in the creation of what is called "the scien-

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tific spirit" in the student. The distinguishing characteristics of this attitude may be stated to be, (1) the spirit of investigation, which accepts nothing merely because of traditionary standing but seeks patiently to find the basis for the truth involved; (2) the spirit of self-reliance, growing out of the practice of individually conducting experimental investigations; (3) the power of discriminative observation, which is always kept in a high state of activity in science study; (4) the habit of inductive reasoning, for the culture of which natural science affords especially valuable materials.

In passing, it is worth while to notice that an appreciative understanding of the beautiful in nature is one of the chief bases of æsthetic culture, and that this intelligent appreciation can come in no other way than by an intelligent study of nature. One who is possessed of even ordinary taste and imagination, can not associate with nature for any considerable period of time without becoming inspired and enriched by the marvelous handiworks of his Creator.

Mathematics.—In spite of usages prevailing for centuries, it is contended by the Herbartians

that mathematics and the languages should not occupy their present autocratic positions in the curriculum of general foundation study. It is not attempted to decry the disciplinary value of these two great groups of studies. It is not denied that the mathematical group is strong in securing the power of sustained concentration of effort. It is admitted that training in mathematics is productive of effective dealing with those problems in which the factors involved are few and definite. Yet it is urged, if mathematical training is made so dominant as to establish a special bent of mind it is injurious, since the majority of the practical problems of life are made up of factors neither few nor definite; that is, they can not be dealt with by mathematical methods. For practical purposes an accurate knowledge of the fundamental operations of arithmetic is, of course, indispensable; but this work may be done, and well done, it is claimed, in less time than it usually occupies.

It is pointed out that perhaps the most noticeably injurious results of a too rigorous mathematical training as affecting one's power to deal with life problems, are to be found in the realm

of educational activities. Those whose duty it has been to create educational methods, to map out courses of study by which the student should be led into fullness of development, instead of investigating the whole field of educational philosophy with the comprehensiveness of vision which historical and scientific studies offer, have practically ignored all factors in study, except that of discipline. With a narrowness and a concentrated energy for which the mathematician is famous in dealing with practical affairs, these educational leaders have chosen discipline as their educational idol and demanded absolute devotion to it, relegating to subordinate positions all those studies like history and science which do not furnish the peculiar training along the lines of their own development. But enough on the dangers of too exclusive study of mathematics. That a respectable place in the curriculum should be given to mathematical study is necessary, of course, and is undisputed by the Herbartians.

The Languages.— It is claimed that the languages, including grammar, should not be assigned a leading place in general foundation

study, at any rate in the latter part of the course, although it is admitted there is need for a moderate study of the languages. There are certain essentials of character culture which the languages are best fitted to furnish.. But, these leaders assert, it does not follow as a logical conclusion that the study of a foreign language shall be made a predominant phase of any particular period in the course now under consideration — that is, up to what is now the grade of work done in the third year of the best high schools. A thorough command of his own language is, of course, indispensable for every student who expects to achieve any considerable results in life; and the greater part of the time given to language training ought, by every rule of common experience and by every principle of educational practice, to be applied to the mastery of that native language upon which one must depend largely for the ability to communicate to others his soul activities — in our case, the English language. The reasons for this emphasis upon one's native language are so simple and so overwhelming that we should naturally expect to find them universally recognized. What is our surprise,

then, to find that most of our leading high schools and academies have been subordinating English to Latin, and in many cases, to Greek and French and German; and not satisfied with that, have been attempting to introduce these foreign languages even earlier than the beginning of the high school course! There can be no justifiable reason for such tenacious clinging to mediæval traditions which are in flat contradiction to the whole philosophy of modern life.

Of course these languages possess a disciplinary value. Generally speaking, the study of a foreign language ought to furnish training in discrimination, in accuracy of mental work, and in patient investigation; but in these respects, although of great value, it is held by many to be inferior to studies in the natural sciences. The chief value of the modern languages, especially French and German, lies in their practical worth as tools of scholarship, since many writings, indispensable to the advanced student, are found only in these two languages; a practical knowledge of them is often valuable in business relations. As for Latin and Greek, more particularly Latin, they contribute to a better understanding

of our own language, as we borrowed much from them. Yet none of these reasons is sufficient to justify the compulsory study of any of these languages, with the possible exception of Latin. The chief disciplinary values assigned to Latin and Greek are that the study of Latin will turn the mind's view toward laws and institutions, the fundamental principles of society; and that the study of Greek directs one "toward philosophical and literary views of the world." It is true that the ancient Roman and Greek civilizations contained much of great value for all times, that in political and governmental institutions Rome is worthy of careful study, and that the literature and philosophy of the Greeks ought to be comprehended, at least in outline, by every student who is endowed with a love for the beautiful and with a spirit of freedom. However, it is said, the essence of these civilizations can be got from historical study in a fraction of the time required to secure the same results by the mastery of these languages, and the historical work be well done, too. If it be urged that four or five or six years of work in these languages will put the student more into the spirit of these ancient peoples, that

it will enable him to enter into their life with greater fullness, the Herbartians reply that the young student has no business entering with fullness into the life of another people. Let him stay at home intellectually until he has assimilated the American spirit in the fullness and richness of all its nobler qualities, and postpone his extended intellectual travels until he is of sufficient maturity to maintain his sociological balance. Who will deny that these same prolonged foreign travels intellectually are the dominant cause of our classical educators being so painfully out of harmony with the conditions of modern society? "No man can serve two masters," etc.

The greatest value of Latin and Greek consists, undoubtedly, in the immortal literary masterpieces embalmed therein. Homer, Xenophon, Cicero, and Virgil need no encomium. Their works will deservedly endure for all time. And if it were not that there is an abundance of masterpieces in our own language, we might well insist upon a thorough acquaintance with these ancient masterpieces during this period. As it is, many insist we have a plentiful supply of valuable literature in English for all the literary de-

mands of general foundation study, and more than enough. True, the understanding of another language, if it be an allied one, will throw added light upon the understanding of our own; and for this reason, one, at least, of the languages mentioned above may be taken up with profit during the latter part of this course. For this purpose, as well as for all-around advantages, Latin offers the largest inducements, for reasons already stated; although local circumstances may, in some cases, make another language more valuable, particularly if the student resides in a region inhabited largely by people not entirely broken away from foreign ways.

Rational View.—The foregoing states substantially, as commonly understood, the positions of the two great classes of thinkers on the question of the relative values of studies in the elementary school. One of the greatest problems of public school pedagogy, and the problem lying at the basis of the science of elementary education, is to determine how much of truth there is in each of these philosophies.

Gist of Difference between Disciplinary and Herbartian Views.—* “The gist of the difference between these two philosophies . . . is the difference which they place (1) upon the native tendencies of each human being that lead him away from a fixed common type of mankind, and (2) upon that universal or rational type. The one [interest] proceeds upon the view that each peculiar and individual expression of the common human nature is the one fact of truly cardinal value; while the other [discipline] proceeds upon the view that the supreme consideration must be the type characteristically human — not private and peculiar, but public, generic, and, above all, historic. The one fills its eye with the single human being and his peculiar whole of personal endowment, in no other exactly repeated, and incapable of being replaced by anything but itself; the other with the imposing whole of the universal rational nature, in comparison with which individual variations seem trivial, and which appears clothed with the au-

* Dr. G. H. Howison, in the *Public School Journal*, July, 1896.

RELATIVE VALUES OF STUDIES

thority and majesty of history, and with the incomparable warrant of a public judgment that has borne the test of time, of experience, of the long conflict of considerate reflection and experience — sobered forethought with the complex and adverse circumstances amid which the race has had to mature. The one, therefore, finds the chief motives of educational aims and methods in the interests of the single pupil: the other, in the rational authority of the human type, historically developed and tested and warranted. The watchword of the one is that kindling word, Interest; of the other the commanding word, Duty, the bracing word, Character, the invigorating phrase, A Reasonable Life. Everywhere the one philosophy echoes to the theme of election in education — the greatest possible range of free choice by the individual student as to what he will study, guided by what he finds answering to his native interests in subjects; everywhere the other, to the theme of a rational system of subjects for study, which is held to express the universal reason of mankind in its several es-

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sential aspects, and which must enter into every scheme of education that can claim to be truly human, in the sense of being genuinely reasonable. Thus the one philosophy finds the master-principles of education in personal native impulse, in personal Desire ; the other finds it in a public or generic intelligent judgment, that gets at the abiding heart of human nature with all the mass and momentum of history — in a universal Rational Will, which is to judge, to master, and to use, all individual desires.”

A Problem of Relative Emphasis.—In spite of the apparent antagonism of these two sets of principles, it is an antagonism due more to extreme views and radical methods than to the intrinsic irreconcilableness of the two principles involved. They are both essential to a healthy, normal development ; and the question is not, whether either one must be supreme, but rather, what is the relative emphasis that shall be given to each of these great principles, in a rational and organic system of education.

Unity of Duty and Interest.—* “The progress of civilization is marked by the growth of the tendency to fuse these two principles into one—the unity of institutions and individuals, of *duty* and *interest*. One’s greatest interest is in that which he conceives of greatest worth to him.

“It is the function of education to make clear that the thing that is really of greatest worth to him as an individual, and which is, therefore, most interesting, and the thing that duty, or Character, or a reasonable life demands, are not opposed, but are one and the same thing. Individual peculiar interest and public duty are to be identified, and how best to do this is the real problem in education.

Principles Governing Solution of Problem.—It appeals overwhelmingly to our reason that duty and interest ought to be identified and made to work together organically. But in what way and upon what principles can this be done? The answer to this is found in the functions of each great stage of study, as outlined in the preceding chapter and discussed more at length in this and succeed-

* Editorial, Public School Journal, July, 1896.

ing chapters. (1) General foundation study — at present the first ten school years, and under a more closely organized system the first eight school years — “deals with the student while his peculiar powers are yet undeveloped (at least in a practicable, teachable form) and seeks to cultivate those powers common to all students and to furnish knowledge of universal value.” This can mean nothing else than the supremacy of the disciplinary studies in this stage, subject to gradual modification in the later years of the stage as the special powers of the student begin manifesting themselves in an unmistakable manner. (2) With the leading stage emphasis upon interest studies properly begins. They should be subordinate to the disciplinary studies in the first part of the stage, but gradually increasing in importance, in correspondence to the chief function of leading study which aims “to draw out the peculiar powers of the student by feeding him that educational food upon which he is best fitted to grow, and in such increasing proportion of favored work as his evolving character will call for from time to time.” (3) In the professional preparatory stage the three-fold aim makes a

varied demand. (a) The professional preparatory work — the backbone of this stage — should be determined, of course, by the special professional interests of the individual student, but conditioned by the requirements of the particular profession. This work should form a rational, organic whole. (b) The semi-professional work of this stage must be determined by the sociological relations of the particular profession for which the student is preparing. This will be considered more at length further on. (c) The general culture work of this stage should be three-fold: First, in those studies that afford a comprehensive, universal view of life and the material world; Second, in those studies pertaining to intelligent and practical citizenship; Third, in those non-professional subjects that are of special interest to the student. (4) The character of the work for the professional stage should be approximately the same as for the professional preparatory stage, with greater relative emphasis on professional subjects. This is discussed more fully in a subsequent chapter.

Aesthetic Training.—Just a few words on æsthetic training in this course. By æsthetics in this connection is meant vocal music, model-

ing, drawing, and color. These have been generally looked upon as mere accomplishments, and their introduction into the courses of certain schools was the signal for a popular outcry of "fads." But nevertheless they have already established their right to a worthy place in the public school program. For not only do they minister to the highest elements of our being, uplifting and beautifying and enriching the emotional life through countless avenues inaccessible to literary agencies, but they are among the most substantial of those branches that make directly for success in practical business relations and in social influence.

Music.—The culture value of music may be briefly summarized as (1) æsthetic, (2) disciplinary, (3) social, (4) moral. Everyone who comprehends the philosophy of character-building, appreciates the contribution of a rich and varied emotional life to completeness of existence. Not to be alive to the power of music is to dwell outside the realm of many of the sweetest, tenderest, and most sublime experiences that the human heart may know. Who will say that something in him entirely beyond his intellectual

parts has not been appealed to by that beautiful creation of Sullivan's — *The Lost Chord*? Who can listen to that supremely sweet song of the *Sanctus* without being almost overwhelmed by the infinite tenderness of which the human heart is capable? Who that has heard that wonderful *Oratorio* of the *Messiah*, Christmas after Christmas, has not been thrilled by its almost omnipotent power; and, when the sublime *Hallelujah Chorus* has burst upon his ears, has not felt like exclaiming with its great composer, "I did think I saw all heaven before me, and the great God himself"?

The disciplinary value of music is not inferior to that of most orthodox studies in training for observation, expression, imagination, and concentration. Nor is its influence for physical culture by any means insignificant. Socially, there is no more potent factor scattering its influence of sunshine and helpfulness throughout the home and the community, at church and at social gatherings. Few other qualifications win social influence so quickly as does a good musical ability when coupled with a benevolent common sense. And it wins recognition thus easily, be-

cause of its potentiality for infusing a higher life into everything of which it becomes a part. Man naturally desires to associate with those who can commune with his higher nature; it is a simple law of social gravitation. A musical education is not only thus valuable for the general social welfare, but to the young man or young woman, starting out in life away from home and struggling with might and main to secure at least a respectable recognition, it becomes a veritable "open sesame" into the community life. The moral value of music has been well put in the lofty words of Mrs. Herrick:

"It has been doubted whether music possesses any moral element. If it is really the language of emotion, and our emotions give birth to motives, there can be no question that music has a bearing upon our spiritual well-being. . . . Elevated and pure as music is, as a ministrant to man, we would deprive it of its chief dignity if we failed to acknowledge its moral effect. We must admit that there is a region which lies beyond the reach of ideas — not only beyond, but above it — which can be penetrated

by melody. Every soul that has ever felt a true adoration for the goodness and glory and majesty of the Infinite must have known some time in its career what it is to lose all cognizance of time and place, even of 'things present and things to come', in a rapt contemplation of that which is beyond the reach of thought. Then every faculty and every sense stand aside reverently, while the soul, thrilled through and through with trembling and adoring love, bows in the presence of its God. Nay, the soul that has ever felt an all-absorbing, self-forgetful love for a human being which it has placed, however unworthily, above itself, can recall some supreme moment when it arose higher and still higher till thought had reached the limit of its domain, and there left it filled with emotions which no human language has been invented to express. There is a silent, rapt communion higher than prayer; and a still, speechless sympathy deeper than words. As there is in the realm of emotion a region which lies somewhere nearer heaven than thought will ever be, so whatever exalts in any measure above itself can not be

wanting in an element of moral power, and can not be without its moral influence."

Art.—Thus much on the claims of vocal music to a place in the general foundation curriculum. As to art education, it not only develops a love for the beautiful, exercising a refining influence over the student's intellectual labors and even over his whole conduct, and elevating his ideals of life; but it also affords training for features of life that are practical, intensely practical. On the practical value of art education Dr. William T. Harris says:

"Inasmuch as the true industrial education is art education, the progress of the common schools in introducing instruction calculated to cultivate the taste of the pupils for genuine works of art is of great significance. The invention of new machinery is gradually driving out the drudgery of work by hand. More and more persons are laboring with the brain and fewer with the mere hand. With the increase of production by machinery more individuals in the community can be spared for those vocations which add ornament to goods. Fewer persons are needed to gather the raw

material, more are needed to manufacture it into articles of luxury and ornament. Those nations whose workmen display the highest order of taste in the finish of their goods hold the markets of the world and increase more rapidly in wealth."

Says James McAlister, speaking more comprehensively:

* "The use of the term 'art education' in connection with the public education has long been a bugbear to many so-called practical people. To such persons the word art in connection with the public schools savors of something unpractical, something that is for special pupils, something for the benefit of the few rather than for the many; and yet a right understanding of the relations of art to daily life shows this to be an entire misconception of the subject. It is a fact apparent to every observing person that the social life of our people is lamentably wanting in an appreciation of the beautiful in nature as the highest truth of nature, and of the beautiful in human life and work as the highest truth of character. This

* U. S. Education Report, 1894-95, pp. 797, 803.

is apparent in the homes, in the amusements, and in the social customs of our people generally. In the scramble for wealth that is going on, people are losing sight of the fundamental ethical principles that hold society together, and are making a pretense of living. Now, art education, which is the study of beauty as the highest truth in human nature and in human life, can be directed powerfully against this social demoralization, and hence we should be prepared to advocate art education in the schools as a potent agency in the uplifting and improvement of the community. Reference has already been made to the want of art culture among our people. This is one of the noticeable facts connected with our social life, and yet the student of history sees that man's creations in art are among his highest achievements, and that they are identified with his highest moral and spiritual development. In the perspective of history it is the art creations of Athens and Rome and Florence and Venice, enshrining as they do some of the loftiest conceptions of the human mind, that

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make these cities immortal in the memory of man. As a people we are ignorant of the uplifting and ennobling influence of art ; and yet we have in our public school system the grandest opportunity that was ever given to carry a love for the beautiful into every home, to make it the possession of every man and woman in the land. But we may look into the future with hope. With the growth of our national power and the development of our material resources, we are broadening our education, and thereby opening the way for a better, a nobler, a happier existence for the people."

Summary.—These five great groups constitute the material of general foundation study — History, Science, Mathematics, Language, Æsthetics. Reason demands that they be distributed in proportion to their relative educational values. The welfare of the pupil makes it imperative. On no other basis can he realize the completeness of his inherent powers. Great advancement has been made in the last few years toward fusing the disciplinary and knowledge aims — character and interest — in the elementary school ; but there is need for a

much closer and more organic union to be wrought out.

Principles Governing Length of Stage.—

Subjective.—The principles governing the length of time ordinarily required for completion of general foundation study have been, it is believed, amply stated in the preceding chapter. The chief question in this connection is, whether the duration of this period of study shall be determined from an objective or a subjective standpoint—that is, from the nature of the several branches of study, or from the nature of the pupil himself. It has been the usage in the past to make the dividing line between elementary and secondary knowledge the line of demarcation between the first two great stages of the public school system—between the common school and the high school. From the objective standpoint of scholarship this is a natural and philosophical division, but it is the opinion of many leading educators that the introduction of secondary studies should begin two years earlier than at present—with the seventh grade rather than the ninth.

* “In recommending the introduction of

* Report of Committee of Fifteen, pp. 44, 45.

algebraic processes in the seventh and eighth years — as well as in the recommendation just now made to introduce Latin in the eighth year of the elementary course — your Committee has come face to face with the question of the intrinsic difference between elementary and secondary studies.”

Many others go farther than the distinguished chairman of the Committee of Fifteen, and hold that secondary studies in general should begin with the seventh grade.

* “ In the opinion of the Committee, several subjects now reserved for high schools — such as algebra, geometry, natural science, and foreign languages — should be begun earlier than now, and therefore within the schools classified as elementary; or, as an alternative, the secondary school period should be made to begin two years earlier than at present, leaving six years instead of eight for the elementary school period. Under the present organization, elementary subjects and elementary methods are, in the judgment of the Committee, kept in use too long.”

* Report of Committee of Ten, p. 45.

Economy of Educative Effort.—It is of fundamental importance in the economy of educative effort, that the period of elementary education be brought down to its proper limits. If the seventh and eighth school years be spent chiefly or wholly on elementary instruction when the children are, by reason of their mental training, qualified to be at work on secondary studies, it means that the thousands of boys and girls who leave school during these two years, or at the beginning of the present high school period — will go out into the world with very little, or practically not any, mental training in the formation of general notions and in the grasp of the manifold interrelations of nature and of humanity; a training which is indispensable to the educated man or woman, and which many of our ablest educators believe should be begun during the seventh school year.

Change of Emphasis.—While it would not essentially affect the knowledge material of elementary and secondary education, yet it seems to many to be a matter of vital consequence that, in the organization of our system of schools — public and higher — the emphasis be changed

from the objective phase — knowledge — to the subjective phase — the student himself — as discussed in the previous chapter on the Organic Structure of Study. No one denies that the student himself is, or should be, the center of all educational effort, and the laws of his development the arbiter of the whole scheme of educational institutions from the kindergarten to the university. The recognition of this principle in the public schools would not require any subversive change in organization or in study material. It would mean simply a formal recognition of what is already being done in our best schools — giving a general and balanced education in each of the five great divisions of knowledge, up to the eleventh grade, or the third year of the present high school period, and then permitting the student to elect from several courses the one in which he manifests most interest, for the last two years of his high school work. From the standpoint of the student, it is pretty generally agreed that under our present system the first ten school years constitute one phase of his school life, the period during which he studies simply from the desire for mental exercise and for the acquirement of

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knowledge in general, and before he has yet developed any special or professional interests. This is the period during which he lays the foundation for his future mental structure, the stage of general foundation study, and by a closely organic adjustment of school work this purpose ought to be accomplished in the first eight school years, that is, after six years of elementary study and two years of secondary study.

CHAPTER VI.

THE LEADING STAGE

Appearance of Special Interest.—Somewhere in the earlier part of their career most students begin to manifest a more than ordinary interest in some group or groups of studies. As every one acquainted with the development of students knows, this decisive peculiarity of mental attitude does not appear at the same age for all. With some it comes early, with others not until late; but with the great majority it appears in a definite teachable form somewhere between the ages of ten and fourteen. By the studies in which most interest is taken is meant the studies that the student likes best, not necessarily the ones most easy for him to master. There is sometimes a difference in this respect.

Basis of Leading Study.—The intelligent understanding of this special interest is of peculiar significance for educational purposes, for

it is the forerunner of professionalism, the first indefinite, instinctive manifestation of that professional spirit which will ultimately become the dominating motive power of the student's life activities. Therefore, if it be the purpose of study, as it is, to take hold upon the powers of the student in the order of their natural manifestation and to lead out these powers into their rational fullness, there must be planned a systematic course of study with special reference to drawing out this inherent bias for a particular group or groups of studies into a healthy, well-developed professional spirit.

* "Every man born into the world comes into it with the limitations of his work clearly defined by nature. The man who succeeds in life is simply the man who is fortunate enough to discover the thing nature intended him to do. . . . From the beginning the student should receive such treatment as will enable those who are watching his development to learn what he can do only with difficulty. But this is not to

* Pres. Wm. R. Harper, Address before National Educational Association, 1895; U. S. Education Report, 1895-96, pp. 1336-37.

be limited to the beginning; it should be continued to the very end of what would be called the preliminary period, a period which in the case of every individual continues until the clearest evidence has been secured of the discovery of the principal work which the individual can do to advantage. When once the discovery has been made, the pupil should be allowed to devote himself, with certain qualifications, uninterruptedly to that for which, as experiment has shown, nature fitted him. The next aim will be to develop those functions which are capable of development. It will not be forgotten that the culture shall be as broad as possible; but it is true that the possible fields of mental culture are multitudinous, and that, after all, no man, however broadly cultivated, comes into contact with many of the fields. It must be admitted that a large part of educational work fails utterly of accomplishing the thing in view. Men pass through all grades of primary and secondary work, enter college and also do university work, and yet are reckoned by the world at large, and even by those most in-

timately associated with them, as failures. And as for adding anything to the life of themselves or others, they are failures. Why is this so? Because the idea has prevailed so extensively that men might be educated en masse; that one after another they might be ground through the curriculum of study without reference to special taste and predilection."

The Problem of Leading Study.—What shall be the character of a leading study course, when shall it begin, and how much of student life shall it occupy? When these questions are answered satisfactorily we shall have gained a clear vision into one of the most vital problems of student life; a problem that educators have hitherto generally ignored or else have grappled with unsuccessfully and left in a state of technical foggiess. There is nothing really difficult, there are no occult factors, in the solution of this problem, if we simply note closely the principles of growth in student life and adapt the courses of study to the needs of the student. The main source of confusion in this stage of education, as well as in the other stages, has been that the courses of study have been planned too much from the ob-

jective standpoint of knowledge and the student crowded into the arbitrary moulds. As is always her way, Nature refused to submit to any such second-rate method of growth. The endeavor to reconcile such irreconcilable differences has doubtless been not altogether profitable, and it has certainly been entirely unnecessary. There can be no substitute for, nor compromise on, natural principles of unfoldment.

Progress toward Recognition of This Special Interest.

—Until within recent years most schools seem to have been totally unconscious of any such development in the nature of the student calling for individual attention, and consequently made no provision for it in their curricula. The same course was deemed sufficient for all students, and what was called a “classical education” was thought to be the only preparation necessary for professional study, and in many cases for entrance into life work. One does not need to be crowned with silver locks to remember when it was commonly held impossible to be properly and thoroughly educated without taking the classical course in secondary school and college — in fact,

when there was no other course in many institutions.

Conditions are considerably changed now. High schools, academies, private normals, and colleges are well-nigh universally offering two or more parallel courses to meet the diverse interests of their students. As a matter of fact, however, these courses have, in many instances, been more a yielding to popular demands than an intelligent realization of a great educational principle. The truth has been stumbled upon by propulsion rather than by attraction. But that matters little.

It chiefly concerns us here to determine in what way this bias for certain studies may be most naturally developed into a strong, healthy professional spirit. Is there a scientific way of doing this, or is it all mere guess-work? One might reasonably suppose, after comparing these various courses in the different schools, which extend all the way from the brief and elementary courses in the so-called private normals to and through the full advanced courses in high-grade colleges, that it is a matter of comparative indifference what quantity of work is done, provided the stu-

dent is given an opportunity to work along certain arbitrary lines. Of course, the radical college men will maintain that a full college training is essential in order to develop the professional spirit, and just as certainly will the radically practical private normal men declare that there is no occasion for more than a very brief course of leading study; while the majority of observant educators are satisfied that both are in the wrong, that one side asks too little, the other entirely too much.

Conditions Determining Period of Leading Study.—Upon what data, then, shall we decide the issue? Are there any conditions that determine even approximately when this study should begin, and how long it should continue? This was answered in the chapter on the organic structure of study, in which the determining conditions are summarily sketched. More in detail they are: (1) the natural development of the student; (2) the requirements of general foundation study, which immediately precedes; (3) the demands of professional preparatory study, which immediately follows; and (4) the maxi-

imum limit under which the whole period of student life can bring about the highest results.

Natural Development of Student.— It is going over old ground to state that a cardinal principle of a true course of study is to conform as closely as possible to the individual requirements of the student. So simple a matter would not need emphasis again and again were it not that it has been so much ignored in educational practice. If, then, we find this special interest in certain studies beginning to manifest itself in an unmistakably natural way, we can not do otherwise than recognize that the nature of the student is making a special call for those particular kinds of life-building elements upon which it is inherently best fitted to grow. Nothing could be simpler. In truth, there can be no other interpretation. But leading study should not be taken up until it is reasonably certain that this particular interest is prompted by an inherent fitness for such studies, and not by outside, accidental influences; as, for instance, that a favorite teacher teaches such and such a branch, or that this or that branch has been made unusually attractive through the special interests of teacher

or parents or associates. Yet it is not probable that any teacher with ordinary practical sagacity will find insurmountable difficulty in dealing with this special feature of the problem.

Preliminary Requirements of General Foundation Study.—The wisdom of not beginning leading study upon the student's first manifestations of special interest is particularly applicable in those cases where the bias appears at an unusually early age, for no one can tell what studies he possesses most capacity for until he has had a reasonable amount of work under each of the great divisions of knowledge — in other words, until he has completed a satisfactory general foundation course. A somewhat extended experience in the school-room, confirmed by numerous reports of eminent educators, leads to the belief that a thorough general foundation course should under present conditions ordinarily comprise the equivalent of what is now done in the schools as far as the third year of first-class high schools — not less than this, and certainly not much more, unless for urgent reasons, as where the student has shown no special liking for any particular study or studies.

* “The Committee of Ten attached great

* Report of Committee of Ten, p. 45.

importance to two general principles in program making:—In the first place they endeavored to postpone till the third year (high school) the grave choice between the Classical course and the Latin-Scientific. They believed that this bifurcation should occur as late as possible, since the choice between these two roads often determines for life the youth's career. Moreover, they believed that it is possible to make this important decision for a boy on good grounds, only when he has had an opportunity to exhibit his quality and discover his tastes by making excursions into all the principal fields of knowledge. The youth who has never studied any but his native language can not know his own capacity for linguistic acquisition, and the youth who has never made a chemical or physicial experiment can not know whether or not he has a taste for exact science. The wisest teacher, or the most observant parent, can hardly predict with confidence a boy's gift for a subject which he has never touched. In these considerations the Committee found strong reasons for postponing bifurcation, and making the subjects of

the first two years (high school) as truly representative as possible."

It is now a generally recognized principle of high school program-making that all courses should be substantially the same through the ninth and tenth grades, and that bifurcation may best begin with the eleventh grade, or the third year of the present high school course. The consensus of opinion among our ablest superintendents and high school principals is that the average pupil at the beginning of the eleventh school year is qualified to select with intelligence the particular course of study which he desires to follow out during the remaining two years of the high school course. So, we find in practically all our best high schools, that, however numerous the courses offered, the first two years are substantially the same. This has come about, not because of mere theoretical experiments, but because a long and varied experience among public school educators has determined beyond doubt the wisdom of beginning leading study at approximately this point.

General Principle Governing Length of Leading Stage.—Assuming, therefore, that, as a rule, the

most advantageous conditions for beginning leading study require approximately the completion of as much general foundation work as is now done in the schools up to the close of the second year of standard high schools, we have further to inquire how much work this leading study stage should contain. In general, the logical answer, and, with some slight exceptions, a conclusive one, is that leading study should be continued until the student has matured sufficiently to make a clear and decisive choice of his future profession. That it should continue until he is prepared to take up professional preparatory study is self-evident from its nature, for that is its avowed purpose—the only reason for its existence. As to the definite quantity of work necessary, it is not to be expected that we can do more here than to approximate to the average time required for this course to complete its purpose, owing to the variability of development of different students. To set hard and fast limits might work great injury, more than in any other stage of the student's career.

If the time set be too short, the natural tendency would be to exert undue influence to se-

cure the desired end within the prescribed limits. To attempt forcing the choice of a profession will, in most cases, result in a premature decision that later on will probably be reversed. Several cases are called to mind in which this actually occurred; but they were where powerful appeals had been made which prevailed upon the sympathies in opposition to the sober judgment of the students, and were not in any way the result of a systematic course of judicious training. In fact, it is felt that the surest way of preventing such powerful appeals and half-seen ideals from turning the student aside into some by-path of his true career lies in just such a method of procedure as is indicated in this connection.

Demands of Professional Preparatory Study.—On the other hand, if the time set be too long and be made to continue for a considerable period after the student has determined upon his life work, it must necessarily encroach upon the time that rightfully belongs to professional preparatory study, and in the end result not less injuriously than a course with too narrow limits. The prevailing tendency in the courses offered by educational institutions, corresponding to leading

study, is to make them entirely too extensive: witness the scientific, philosophical, and other optional courses properly secondary work — in college curricula.

And further, the ultra-conservative classical college course, chiefly of days gone by, but still clung to by a few leading institutions, ignores entirely the great truth that the student long before, in his secondary school work, has developed an aptitude for a particular line of study. The aim is not to cultivate any particular tastes or aptitudes, but to furnish a broad and general training. It appears to be the opinion of these institutions that the period of general foundation study should extend to the Junior year in college.

* “The required studies are regarded as fundamental and essential in a liberal education and therefore are not left to the student’s option. . . . Most of the studies of the Freshman year are required. In the Sophomore year the studies are substantially all required.”

** “The kind and amount of study in these two years (Freshman and Sophomore) are

* Catalogue, Princeton University, 1897-98, p. 36.

** Yale College Catalogue, 1897-98, p. 24.

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believed to be such as are essential for laying the foundation of a liberal education, whatever the department or profession that may be pursued in after life; and no more than this is needed to give the student a proper basis of knowledge and discipline for the study of the elective courses which follow, and that knowledge of himself and of the subjects before him, which is needed for a judicious choice."

A man may be made too broad as well as too narrow. If nature did not adjust the width of rivers to the quantity of water in them, their currents would cease and they would become stagnant and practically useless. It is difficult for many to realize that this fundamental truth of nature is paralleled in human lives, but it is even more forcibly true than in nature. A human life developing with no clearly defined bounds, or with bounds ill-adjusted to its soul-contents, can not reasonably be expected to result in a full, clear-cut character with a strong current of activity. Fullness of life demands that the process of education correspond definitely to the capacity of the individual student's soul-energies.

As Conditioned by Normal Period of Entire Student Life.—If, then, we undertake to set even an approximate limit for the leading study period, and it is believed that such approximation is practicable, we can not do this simply by abstract, theoretical reasoning on how much ought to constitute such a course, but we must gather our data from actual observation of the average time required from the normal close of general foundation study until the student, by the laws of his own development, is prepared to take up professional preparatory study. It is believed that two years of solid work, of a grade equivalent to the last two years of our standard high schools will generally be found sufficient when supplemented with the correlative training suggested in the latter part of this chapter. The quantity should not be much less than this, for the studies of the professional preparatory course require a mind somewhat disciplined to sustained and concentrated efforts — such a discipline as can not well be obtained by less work than the amount stated, even though the student may have made his decision for life work some considerable time previously. To make satisfactory progress in the professional

preparatory studies requires also a comprehensiveness of mental grasp and somewhat of a maturity of experience in mental work, two essentials that are not ordinarily attained before the student has finished a good secondary school course or its equivalent. Nor should there be much more than two years' work in this course, provided that it has accomplished its main purpose within this time; for the later demands of the professional preparatory and professional courses will in themselves take as much of the student's life as he can profitably spend in study. *There is no room, and no necessity, for extra work in any part of the student's entire career. When each stage has attained the chief ends for which it exists, its work is done and the next stage ought to be taken up at once.* This bare statement may seem simple enough and true enough; but it is a much more difficult matter to secure its recognition in practice. The most effective means for keeping the leading study period within its proper limits is to keep constantly in mind the normal period of the entire student life, and then to try to adjust the work of leading study to this stage of student life so

naturally and so closely that the growth of character will be neither forced nor delayed, but drawn out naturally and fully into a clearly defined professional attitude.

Principles of Progress.—A pertinent question has been asked here — how far should the age of the student determine the character of his studies, especially where his work previously has been irregular? To this it can only be answered that the extent to which the age of the student should determine the character of his studies or fix their limits is a delicate matter for settlement. Under normal conditions where the student has attended good schools continuously, and where the germs of individuality are strong, general foundation study under our present system may usually, as before pointed out, be completed by the age of sixteen and leading study approximately by the age of eighteen. As also before pointed out, by beginning secondary education with the seventh grade, leading study may be begun at the age of fourteen and finished approximately at the age of sixteen. But with the student whose opportunities for schooling have been only occasional, the question of age can not be a

matter of any considerable importance. This applies equally well to professional preparatory and professional study. The questions also arise, what if a student shows no particular aptitude for any particular study or group of studies when he has completed the normal amount of work required for a general foundation, or even after further study; or, if having pursued a normal course of leading study, he is unable to decide upon his future profession? In all such cases there need be no confusion in procedure. Common prudence will dictate that the student should pursue general foundation study until he is qualified by his own character development to take up the leading study course, whether this be determined at the normal period or deferred until the close of a full college course or its equivalent. The same principles of progress regulate the length of each great stage of study and determine the passage of the student to the next stage. On the other hand, it does not necessarily follow, if the student develops a liking for a certain group of studies before the normal period of general foundation study is drawn to a close, or if he is led to choose a profession before the nor-

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mal quantity of leading study work is finished, that he should in either case quit that stage then and pass to the next. It is believed that the quantity of material contained in the normal period as indicated for each course is the minimum requirement for thorough, high-grade work in building a broad and substantial basis for the succeeding courses. *Yet through all the requirements of the entire student life, completeness of results and not mere formality of method must be the criterion of progress.*

Character of Material.—The character of the material for leading study should be, as stated before, the same as for general foundation study, being simply a continuation of the latter with more time given to those studies in which most interest is taken by the student. No attempt will be made to outline a complete course of study for these two stages, for there is no virtue in drafting iron-clad rules on matters of detail. But suffice it to say generally that they should include under Historical material, mythology, folk-stories, biographies of great men and great women with special emphasis upon those of America, United States history, civil government, general history

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(or Grecian and Roman history), English history, and French history, as well as the simpler masterpieces of literature of a biographical or historical nature; under Scientific material, physiology with special reference to the science of health, geography — including physical geography — botany, zoölogy, physics, and chemistry. Under Mathematical material, arithmetic, book-keeping, algebra, geometry, and manual training; under Language material, language, composition, literature in its language aspect as the expression of great thoughts and emotions and phases of life, grammar with much less emphasis upon abstract definitions than is usually given them, one or more foreign languages — four years' work in Latin preferred, or two years each of French and German, but both should not be begun the same year; under Æsthetic material, vocal music, drawing, and color should be carried on as minor studies continuously, and the æsthetic phases of literature be given due emphasis.

This is only a suggestive outline. There are, doubtless, numerous other arrangements of studies along the same general lines which are quite as valuable. The only object in giving it

is to point out the main paths along which the student's work lies at this period of his progress. The details can be wrought out in correspondence with the relative values and the correlation of studies. It may be found advisable to add certain studies to the group — as given above — in which the student is specializing; for instance, if it be the scientific group, geology, or if the mathematical, astronomy and trigonometry may be added, and, if desirable, certain of the subjects mentioned above omitted from the other groups; and so for each group on which the leading study work may be based. The course as given above is outlined to cover two years of leading study. In those cases where more is necessary the various groups may be expanded to suit the individual demands.

Critical Importance of This Stage.— So, the central aim of this stage of study is to fit the student to make a rational choice of his future profession. Whatever means, therefore, can assist in securing this end are essential here. Every educational agency that can throw light upon this critical phase of character-building ought to be focused on this period. There is an urgent de-

mand for a high degree of directive power, whether it be from instructor or adviser or whether it be self-directive. Indeed, if there is any one period of student life more important than the rest, a period calling for greater knowledge of human nature and a more masterly grasp of human affairs than is ordinarily found on the part of those who seek to exercise a determining influence upon the lives of our youth, it is this stage in which the soul-energies of the student are to be started in their particular life-channels of world activity. There is no more vital problem in the whole range of education than the one involved here.

Problem Long Ignored by Educators.—

And yet, judging from past and current educational methods, one might reasonably suppose that the problem of choosing a profession is a matter of comparative insignificance, or at most a problem with which secondary education is not closely concerned. Doubtless, most educators will object to these interpretations of their views, but this is simply judging their beliefs by their practices, which is the ordinary method of judging men's notions — and an entirely fair one,

even though it may not always be technically correct. It matters little what one believes unless he makes his belief the motive power of his practice.

Accordingly, if we seek in educational practices for clear, rational guidance in this matter of choosing a profession, we shall seek long and seek in vain, for it is not to be found there. Strange as it may seem and strange as it really is, this vital feature of education has been practically ignored in the mad rush for knowledge and discipline and scholastic honors. No contention need be made against these particular aims in education; they are highly valuable when kept within their proper limits. It is only when they are exalted to become in themselves the chief aim, that they work injury. And in unnaturally exalted positions they are now working great injury to education. Again, it becomes necessary to repeat what has often been said before, that the student himself is the central object of education, that all aims must be the logical outcome of his natural powers, and all methods in harmony with his normal way of unfoldment. If his professional spirit will normally unfold itself

in a period of study approximating two years of work from the normal close of general foundation study, then it is altogether wrong to keep him in leading study work for several years longer, no matter how desirous the knowledge or the discipline or how alluring the scholastic plums. The highest forms of life-building can never be accomplished except by conforming closely to the stage developments of life-principles in the student.

* " Another important function of the public school in a democracy is the discovery and development of the gift or capacity of each individual child. This discovery should be made at the earliest practicable age, and, once made, should always influence, and sometimes determine the education of the individual. It is for the interest of society to make the most of every useful gift or faculty which any member may fortunately possess. . . . To make the most of any individual's peculiar power, it is important to discover it early, and then train it continuously and assiduously. . . . The perception or discovery

* Pres. Chas. W. Eliot, Address before Brooklyn Institute, October, 1897.

of the individual gift or capacity would often be effected in the elementary school, but more generally in the secondary; and the making of these discoveries should be held one of the most important parts of the teacher's work."

Profession-Study.—Practical instruction in profession-study has hitherto occupied a remarkably insignificant place in our educational curricula. About all the information that most students have gained in regard to choosing a life work has been what they have gathered in the nooks and by-paths of their career, from random conversations with friends and chance acquaintances or from the advice or desires of parents or teachers. A rather peculiar way of treating so great an educational problem, one would think! What wonder, then, that there are so many mis-fits in occupations! What wonder that so many young people are not able to make a rational choice of a profession within the normal period! If all youth were gifted with germs of individuality strong enough to keep themselves in their natural life-channels regardless of outside influences, there would be little need for

supervision in this stage of development. But as a simple matter of fact they are not, nor are the most of them, as every keen observer of human nature well knows. Even when the average student eventually determines his future life work he has consumed a great deal of unnecessary time, or of time that would have been unnecessary under proper guidance.

Now, it is not believed that the growth of the professional spirit in the student can be arbitrarily measured by metes and bounds in length of time. But what is insisted on is this: That a systematic course of instruction on the art of choosing a profession be made a definite part of the leading study course. So far as information is at hand, there is now no suitable text-book for this purpose. Until one shall appear — and it is hoped that the crying need may spur some experienced educator with a masterly knowledge of student life to furnish a work that will fill the void — we must gather the desired information from whatever sources will avail. Perhaps, by stating the outline features of what, in our opinion, this instruction should include, the means will suggest themselves by which the

teacher or the student may be able to carry on this work for himself by a systematic course of reading and by extensive personal consultations with persons of practical and successful experience. But it must eventually become an essential part of the regular school work.

As Regular Study.—This series of investigations intended to furnish the student in this stage with practical insight into the various phases of professional activity in order that he may, at the proper time, make his selection of a profession with the whole field clearly before him, demands profound consideration and deserves the dignity of a regular study in this leading study course. In scope it should be comprehensive enough to include a consideration of all professions of any consequence, whether known by the name of profession, trade, calling, or what not. There can be no complete data from which to form a conclusive decision, unless every worthy life-work is given a fair and impartial opportunity to have its status presented and its fitness to the peculiar powers of the individual student compared with that of other professions. In character it should be scientific. When it is said that

the character of this practical information should be scientific, it is meant that professional life should be treated impartially and thoroughly, dwelling on those points only which are of vital interest to the student at this time. It is of prime importance that the consideration be entirely impartial. So natural and so common is it for parents and friends to preconceive a particular professional career for the young lives under their care and then to use all their influence to bring about the consummation of these preconceptions, that one feels called upon to remonstrate in no gentle terms. What the student is seeking for is disinterested information, not biased advice or unreasoning entreaties. This information should also be thorough; not, of course, in detail, but in all salient points and to such an extent as to present in clear light the opportunities, the rewards, and the demands of each profession. In time, it should cover a considerable period, perhaps as a minor study during the whole of the leading study course. By thus making the period for gathering information somewhat prolonged we may guard against the impulsive decisions made through caprice or through the

temporary overshadowing power of some particular professional influence. Experience teaches that to secure permanent and satisfactory results a course of instruction must be somewhat prolonged and continuous. It will not suffice to do spasmodic work — a little now and then, and nothing between times. This profession-study should be assigned as regular work, just the same as the regular studies of this stage.

Elementary Sociology the Basis of Profession-Study.— To secure the most satisfactory results, this profession-study must be based upon a general acquaintance with elementary sociology. The student should be made familiar with the elementary facts concerning the origin, growth, and present conditions of social life in all its chief phases. Only in this way and upon this basis can he grasp fully the organic nature of society in its various fields and be prepared to comprehend the complete meaning of a life work. And only upon such a basis can he grasp fully the conditions and statuses of the different forms of professional activity.

Objection has been raised on numerous occasions to the introduction of sociology into secon-

dary schools, on the ground that it is too difficult a study. But these objections have come chiefly, on the one hand, from those unfamiliar with sociological study, and, on the other hand, from those who are concerned with it from the collegiate or university standpoint. The difficulty of the subject depends altogether upon the way in which the material is organized and presented. For secondary students the character of such study will necessarily be general and elementary, and, besides, that is exactly what is most desirable for the end in view.

There can be no question as to the great value of elementary sociological study for secondary students. For disciplinary training, in the broad sense; it has no superior. Its composite character affords a varied culture. The study of nature's laws in relation to human society requires the exactness and prolonged attention of mathematical and language study. The study of the influence of physical conditions upon the development of social life involves all that is involved in scientific training. While the study of men in their various relations to each other, socially, religiously, politically, industrially, and otherwise,

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gives even more effectively the broad, balanced, and humanized discipline which the study of history, in its inclusive sense, affords. The practical, content value of elementary sociological study during this particular period of leading study, when the student is struggling to find his sociological position, is inestimable, for it is directly preliminary to the knowledge which he most needs at this critical stage of his development. Nor is there any inherent reason why the study of elementary sociology should present unusual difficulty to third-year students in our secondary schools, where the previous work in geography and history has been properly done; for these two studies are the foundations of sociological study, and the step from them to elementary sociology is, or ought to be, easy and natural.

Character of Elementary Sociological Study.—The materials of this elementary sociological study should be arranged with the following aims uppermost:

(a) To afford a simple and practical, yet clear and comprehensive, exposition of the origin, structure, growth, and present conditions of social life in its various phases, particularly in our own country.

(b) To give, in general outline, the rise and growth of all the leading kinds of present-day professional activities.

(c) To point out clearly the function of a definite life work for the individual.

(d) To make plain the related social groups by which semi-professional social service becomes a personal obligation.

(e) To mark out the sociological function of general culture activities.

Biographical Study, Character of.—This might, with advantage, be followed by a study of selected biographies illustrating the three-fold function of a successful life worker — his professional, semi-professional, and general culture activities.

Quantity of Such Work.—These sociological and biographical studies may profitably occupy the position of a regular minor study for the whole of the third year of the secondary schools. The peculiar nature of the purpose to be accomplished demands that they be prolonged throughout the year, rather than concentrated in a short period.

Profession-Study Proper, Character of.—Having this elementary sociological and biographical

foundation, the student is prepared to take up for the next year profession-study proper. The aims should be:

(a) To give a clear, comprehensive, and impartial view of every important field of life work in its present status in this country.

(b) To afford this by showing the requirements, the practical duties, and the rewards in each field.

(c) To encourage much supplementary reading, consultations with persons of successful experience, and practical investigations, on the part of the student.

Reasonableness of Profession-Study.—Example.—

In general, the preëminent reasonableness of profession-study ought to be sufficient to give it an honorable place in the secondary school curriculum. In particular, no better illustration is needed of the necessity for careful, thorough, and comprehensive exposition of present-day professional conditions than is afforded in the field of law. The youth who dreams of winning distinction at the bar in the way that his father and grandfather laid their foundations and achieved success, is very likely to experience a revolution-

ary awakening when he gets an insight into the present status of the legal profession in this country. The old school lawyer laid his foundations in mathematics and the languages. The classical courses in secondary school and college, with considerable history, were fairly well adapted to the nature of the work that his later professional duties demanded.

The present-day lawyer finds the field radically changed. The immense impetus toward peaceful arbitration of disputes, the simplification of real estate matters through legislative enactments, the rise of business corporations doing special phases of legal work, and the growth of gigantic companies requiring legal counsellors with marked business capacity, all combine to demand of the future lawyer qualifications widely different from what constituted the equipment of the successful lawyer in the past. It is true that the lawyer with business capacity has always been at an advantage over his co-workers not so equipped; and it is also true that to a certain extent the better class of old school lawyers will always find a clientage. But no one familiar with the recent developments in industry and

commerce can fail to see the resulting influence upon the legal profession. These mighty sociological changes, of which we are only at the dawn, demand imperatively the attention of our youth whose professional interests are beginning to make themselves manifest.

What has been said of the legal profession may be repeated to greater or less degree of the other fields of life work. With some, the modifications have not been so radical; with others, fully as much so, or more — for instance, electrical engineering. But whatever the likelihood of stability or of change in the status of the different professions, there is only one way by which the student is likely to obtain a clear, balanced, and satisfactory knowledge of what the world is offering him for a life work, and that one way is by systematic courses of profession-study under the skilled supervision of thoroughly equipped teachers.

CHAPTER VII.

THE PROFESSIONAL PREPARATORY STAGE

Position in Complete Scheme of Study.—

Let it be taken for granted that the two preceding stages have accomplished their purpose, and that the student is now ready to enter upon preparation for the profession of his choice. Two great questions at once present themselves: What kind of preparation should this be, and, how much should it include? In answer to the first question, while the specific kinds of material for the different professions will vary, there are certain underlying principles which remain the same for all. Full preparation for professional life involves an intellectual and technical mastery of the fundamental principles of that particular profession for which we are studying. But we must go farther back and ask what is included in the intellectual and technical mastery of these fundamental professional principles. It

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involves the clear understanding of these principles and the ability to put this knowledge to effective use, but it involves more than this. Up to this stage of his education the work of the student has been general, with some emphasis, it is true, upon his favored studies in the last two years of his work. He has, however, as yet made no conscious steps directly toward a professional upbuilding, for the simple reason that he has not until just now come into a realization of his professional character. And so to start him at once upon the mastery of strictly technical professional studies is taking a great leap for which he is not prepared. The technical courses required for the leading professions are naturally composed of graduate studies, and it is idle to expect that one will get the full worth of these courses unless he brings to bear on them a mind disciplined to hard work and well equipped in those great departments of studies which are specially involved. *Beyond the limits of the first two stages of study, both in range and in maturity, and in character naturally precedent to the strictly technical branches, lies, for each profession, a group of studies the mastery of which is absolutely essen-*

tial to depth and breadth of professional study. To furnish this equipment is the chief function of the professional preparatory stage.

Three-fold Object.—The object of the professional preparatory stage is three-fold: First, to furnish a thorough preparation for the successful prosecution of professional study; secondly, to furnish an acquaintance with those semi-professional phases of activity into which one's relations will most likely lead him when he has come into the realities of his life work. The remaining object of study in this stage, that of cultivation in all-round manhood and womanhood, is provided for in that part of the general culture course running parallel to the professional preparatory course and, while only complementary, is of great significance.

Professional Preparatory Study.—As a preparation for professional study, the preparatory course has three purposes. The student, at the close of the leading study course, is not sufficiently prepared either in mental discipline, in the necessary scholarly equipments for technical investigation, or in comprehensiveness of vision, to take up with profit the abstruse and

highly specialized studies of the professional course.

Discipline.— In the first place, the professional student needs a disciplined mind, a mind trained to hard and systematic work and capable of prolonged concentration. Such discipline comes only from years of scholarly study and to a mind that has to some extent reached a mature condition. The average student who has completed the leading study course is not qualified either in discipline or in maturity to enter upon professional study. Now and then a genius overleaps these bounds without serious difficulty, but we ordinary mortals can not do it. The demand for intensity and continuity of concentrated effort will be found to vary somewhat in the different professional courses, as was pointed out in a previous chapter. The more comprehensive and intricate the studies of a professional course, the greater must be the discipline and the maturity of the mind that grapples successfully with them. This discipline is usually furnished best by the study of those branches elementary and correlative to the professional course. Thus the law student will find it impossible to pick out the

fundamental principles from the great body of the common law, arranging them in an orderly classification and tracing their development from early conditions down to their present state, unless he has a considerable ability in discriminative observation, in reasoning from numerous and oftentimes conflicting causes, and in practical judgment; such discipline as is gained from extended and thorough study in history and its allied subjects. No sensible student of engineering would expect to grasp the advanced mechanical and electrical work of his course, unless he had schooled his mind in the methods underlying the study of mathematics and physics. Nor could the student in medicine hope to make much progress without the discipline resulting from somewhat of chemical and biological investigations. And so with other students in their respective courses.

Tools of Study.—Secondly, there are certain formal studies — so-called — varying with different classes of professions; studies with which one must be acquainted, and which one must be able to use as tools of professional craft. A number of these, such as logic, advanced rhetoric, and, in some instances, the languages, lie beyond the first

two courses, and must be supplied by the professional preparatory course. Not that all of them need be included in any one course, but some of them will be found necessary. Logic and rhetoric are especially valuable for the "intellectual" professions; while the languages are valuable for all professions — Latin, because of the technical terms in common use, and because a knowledge of it makes mastery of our own language easier, since a considerable part of ours is derived from the Latin — French and German, because much of the best modern thought is in these languages, and has never been translated. So Greek and Hebrew are indispensable to the prospective theological student, since Greek is the original language of the New Testament, and Hebrew chiefly that of the Old Testament.

Comprehensive Preparatory Knowledge.—Thirdly, it is necessary that the student shall take sufficient work in those advanced studies directly correlated with and naturally precedent to his professional course to give reasonable assurance that he will enter upon his professional studies with a philosophic grasp of his profession in its comprehensive relations, and with such familiar-

ity with closely allied subjects as will insure speedy and substantial progress. This can not be done in the previous stages, and it remains for this course to fulfill such function. The higher and broader the view that we hold of professionalism in its sociological function of bettering humanity, which is its chief function, the more rational will be the professional preparatory curriculum. It is cause for profound regret that professionalism is so frequently held, both in the professional schools and out of them, as an avenue for mere personal advancement. By this it is not meant to imply that our better class of professional schools deliberately inculcate the doctrine of selfishness. Not at all. But there is a manifest lack of emphasis upon the beneficent social function which only a well-developed professional worker can fulfill. Professionalism that provides only "for me and my wife and my son John and his wife" may succeed financially, and possibly in a certain kind of reputation; but it will be too thoroughly devitalized ever to attain to the loftier and richer planes of life. There is no better way by which education can dissipate this abnormally utilitarian conception of profes-

sionalism than by providing such a course of professional preparatory training as shall form a natural connecting link between the previous stages and the professional course, keeping the central aim for organic culture continuously dominant. And this, by so applying the elementary principles of educational philosophy in the construction of the professional preparatory curriculum that the student may grasp the notion of professionalism in the full significance of its proper function. The more progressive of the colleges are recognizing this in a less consistent way, by permitting the latter part of the college course to be made introductory to the professional course, especially in law and medicine.

Principles Governing Professional Preparatory Courses.—It would not be practicable to attempt an exhaustive list of the correlative studies which should form a chief part of this preparatory course. Hard and fast lines in the details of study are not wise, since the fields of educational material are being constantly enriched and new fields added. The chief concern, in this connection, is for our educators to realize that *there is a group of advanced studies lying naturally*

between leading study and professional study, and that the student must master this group before he is prepared for high-grade work in his professional course. What these studies are for each profession may be determined by a careful investigation, (1) of the requirements for the successful prosecution of that particular profession in its highest and broadest scope; (2) of the correlation and sequence of studies, with special reference to this professional equipment; (3) of the student's ability to master knowledge at this particular stage of his development. To gather this information will require extensive observation and patient effort.

Examples.—It will suffice our purpose here to mention a few of the most important subjects introductory to several of the prominent professions, not including those subjects previously mentioned as tools of professional study, nor the semi-professional studies to be suggested later. For the prospective law student, Political and Constitutional History of England and of the United States, English Literature and oratorical work, Ethics, Modern Business Methods, Sociology, and Political Science will be found es-

pecially helpful; for the prospective journalistic student, much the same as for the law student, with more emphasis upon Finance, Sociology, and the Industrial problems; for the prospective medical student, advanced courses in Physics, General Biology, Chemistry, Zoölogy, and Botany; for the prospective theological student, Ancient and Mediæval and Modern History, Psychology, Ethics, Philosophy, Pedagogy, English Literature and oratorical work, and Sociology; for the prospective pedagogical student, Physiology, Psychology, Pedagogy, Philosophy, Ethics, Sociology, and somewhat of advanced work in the subjects which he intends to teach; for the prospective business student, Financial and Industrial History, Industrial problems, Municipal Government, Sociology, Physics, Chemistry, and Commercial Geography; for the prospective student in Agriculture, somewhat of advanced work in Physics, Chemistry, Botany, and Zoölogy, Financial and Industrial History, Sociology, Commercial Geography, and Meteorology.

The above outlines are intended to be suggestive only, not exhaustive. The quantity of work

must, to a reasonable extent, correspond to the natural ability of the student and his previous training. But his work should be along the lines indicated. The reasons for assigning each of the various branches a place are not adduced here because it is believed that the relation of each branch to a broad and lofty professionalism is easily distinguishable by anybody who possesses even a moderate capacity for comprehending the organic nature of the educational process.

Semi-Professional Study.—With regard to the second phase of professional preparatory study, that of fitting one for the semi-professional phases of life into which his professional position will most likely lead him, outside of his strictly professional sphere, the student should be given as thorough an understanding of these phases as is possible in the time, or quantity of work, allotted to this course.

Principles Applied.—As to what should constitute this part of the course, there is wide latitude for choice, dependent upon the social classes and institutions with which each particular profession comes mostly into contact. For instance, the students of law and of journalism ought to be-

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come familiar with the principles and practical workings of political and municipal governments, with economics, and with the general structure of society and the various efforts toward social betterment. And this stands as an essential part of their equipment, not because of the opportunity it may offer for self-advancement, but because their professional positions will preëminently fit them for action along such lines; and because, in such case, they owe it as a duty to their fellow-men to serve the public in whatever capacity their conditions will permit. So, in different spheres, with the minister, the teacher, the physician, the farmer, the business man, the musician, the engineer, the architect, and with every professional man and woman.

Compensating Law of Public Service.—Those who work along these lines are the truly great. They are the ones whose influence is most powerful for good, and who are always to be found in the forefront of every movement that is for the uplifting of their fellow-men. And it pays — this interest in the welfare of others — better than anything else in the world; for there is a beautiful and invariable social law of compensation

which declares that *Whatsoever ye give, that shall ye also receive in return*. To such characters honors come unsought, and they grow in greatness and in power so naturally and so quietly that they have become arbiters of destiny for thousands and tens of thousands almost before we are aware of it. We can not live to ourselves alone. The measure of our uplift to others will be the measure of their uplift to us. This is an educational law of fundamental importance, and the student can not afford to ignore it. Whose are the lives immortal in our country's history? Why the grateful tributes that we render to them with an universal voice? Whence comes this power of theirs to shed their radiant beams along our nation's path of progress, like beacon lights eternal and undimmed? From inordinate ambition? No. From power of personal aggrandizement? No. From shrewd duplicity and demagogic tactics? No. Can you not see the "sailor of Genoa" confronting the whole hostile royalty and the ecclesiastical authority of Europe and then venturing upon the terrors of an unknown ocean for the sake of a great truth? Will you be likely to forget how Smith and Standish

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and Williams and Penn and Baltimore and Oglethorpe left homes and wealth and civilization, and, with no other guaranty than their faith in a ruling Providence, led their brave bands into the midst of a vast wilderness filled with wild beasts and savage foes and exposed to all the inclemencies of a rigorous climate, for the sake of living according to the dictates of conscience? Do you not recall that majestic scene of a later day, when Washington, with his colleagues, Hancock, Henry, Jefferson, Franklin, and the Adamses took our young nation from the arms of an angry parent and established her in a home that is at once the admiration and the wonder of the world, though they well knew that the failure of their efforts would mean death in ignominy upon the scaffold? Has not your heart thrilled as you have witnessed the masterly Hamilton building up our national credit on a foundation so broad and so firm that it has never been shaken; or the iron-willed Jackson, single-handed, holding at bay the vicious forces of Nullification; or those forensic giants, Webster and Clay, in the furious battles of the Senate, bearing aloft the emblems of our national integrity; or the

indomitable Grant "fighting it out along this line, if it takes all summer"; or the human-hearted Lincoln, whose capacious soul held no room for private vindictiveness, no room for sectional animosity: each bending all his mighty energies for the uplifting of our common country, and disdaining whatever of toil and of personal sacrifice his arduous duties involved? So, multitudes of others, like Agassiz in science, Childs in business, Whittier in letters, and Frances Willard in temperance, have given their hearts to their fellow-men and have gained undying honor in reward.

Principles Determining Length of Stage.—It may be well to consider for a moment the factors that determine the length of the professional preparatory course. They have been noticed before—the psychological development of the student, his sociological environments, and the nature of his particular profession.

Psychological Development of the Student.—Every experienced educator has discovered, and every advanced student knows, that up to a certain point in our student life we enjoy studying for the mere sake of the knowledge gained, but that beyond this point the healthy, vigorous student

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wants to study toward some end definitely related to the natural bent of his activities. How far this professional instinct ought to be encouraged and how far it ought to be held in check in the educational process, is a matter for judicious experience to decide. Some students develop rapidly, others slowly; but for the average student experience seems to dictate that about three years of elementary and correlative work is essential as preparatory to broad and solid professional study. True, the regular college course is still a four years' course, but a careful examination and comparison of the courses of our leading colleges will show that the last three years of the courses are, substantially, professional preparatory courses. And, as a rule, this tendency to make the college a preparatory school for professional study will be found to be most clearly defined among the colleges of highest standing. Only a few years ago, the average college was supposed to exist simply for the purpose of giving its students a "liberal" education, which meant simply a general training for nothing in particular. Gradually, educators began to realize that the professional interests of the student are usu-

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ally fairly well developed when he enters college and that these professional interests ought to receive marked attention throughout the college course. At first, the senior year was given over to such preparatory work; then the last two years; and later, the last three years of the college course — among many of our best and most progressive institutions.

Of this class of colleges the Industrial College, of the University of Nebraska, may be taken as a typical example:

* “All the courses in the first year of residence are prescribed, and form the common bases of both the general and the special groups offered.

“At the end of the first year of residence the student may continue his work in either of the general groups, or he may elect any one of the special groups. The studies in the general groups are arranged to meet the requirements of students whose primary object is a broad and general education.

“The various lines of study in the special groups are planned and coördinated to enable

* Bulletin, University of Nebraska, May, 1902.

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students to direct their work so as to meet their individual needs and preferences. In these groups the principle of concentration and intensive work along a definite line is recognized."

But a number of first-class institutions have gone further and now permit such preparatory work from the beginning of the college course. This last seems most in harmony with the best recent educational thought and experience.

* "Students are strongly urged to choose their studies with the utmost care, under the best advice, and in such manner that their studies from first to last may form a rational connected whole. It is believed that any plan of study, deliberately made and adhered to, will be more profitable than studies chosen from year to year, without plan, under the influence of temporary preferences.

"It will be seen that students who prefer a course like that usually prescribed by American colleges may secure it by a corresponding choice of studies; while others, who have decided tastes, or think it wiser to concentrate

* Harvard College Announcement, 1897, p. 249.

their study on a few subjects, obtain every facility for doing so.

“Undergraduates who intend to study engineering are advised to consult the Dean of the Lawrence Scientific School with reference to the best courses for them to take in college. To those who intend to study Medicine the Medical Faculty recommends Natural History, Chemistry, Physics, French, and German. To those who intend to study Law the Law Faculty recommends Latin, French, Themes and Forensics, Elocution, Oral Discussion, Rhetoric, Logic, Ethics, Political Economy, Constitutional and Legal History and the History of Institutions, International Law, and Roman Law.”

Sociological Limitations.—And next to the sociological limitations. There is a widespread feeling among our ablest educators that the present full college course, or its equivalent, as precedent to a full professional course, is unreasonable and in violation of the avowed principles of education. President Eliot has said with reference to medical education, and it applies essentially to many other professions:

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“ The average age of admission to Harvard College at this moment is fully 19. The student who stays there four years to get his A. B. is 23 when he graduates. He then goes to our medical school to stay there four years ; so he is 27 years of age before he even has his medical degree, and we all know that some years intervene between that achievement and competency to support a family. Now, that highly educated young man ought to have been married at 25. The remedies for this state of things — which is really intolerable and which particularly ought not to exist in a country so new as ours—are somewhat complex. The proper age for a secondary education in our country is between the ages of 13 and 18, not higher. Then I must frankly say that for years I have been in favor of reducing the ordinary term of residence for the degree of B. A. to three years, an out and out square reduction from four to three years.”

This would allow the student to enter upon his professional study at the age of twenty-one. The opinion of this eminent college president and educational authority is quoted, not for the purpose

of entering into an abstract discussion of college education, but because he, from long years of broad experience, emphasizes the fact that sociological conditions determine that this course of preparatory study should comprise not more than three years of good solid work not later, as a rule, than between the ages of eighteen and twenty-one — and under a closely organized system, between the ages of sixteen and nineteen.

Nature of Particular Life Work.—It is believed that this will prove wisest for preparation for most professions, especially for those of law, medicine, the ministry, teaching, journalism, and business. Perhaps other professions, like engineering, architecture, and agriculture, and the æsthetic professions of music and art, do not demand this full preparatory course, or at least will not suffer so severely from the lack of it; but even here it can do much to empower and enrich the student in his work.

The distinguished head of Columbia University goes even further in his recommendations for the modification of college work:

* “Those who are to prepare themselves

* Nicholas M. Butler, in *A. M. Review of Reviews*, November, 1902, p. 590.

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for professorships, and for expert service in other ways, will need all of four busy college years before entering upon what are called post-graduate or research studies. On the other hand, those who are to spend from three to four years in a professional or technical school did not need — in the strict sense of the word — four years of college instruction; although many of them, no doubt, would profit by having it. It is for this class of students that I believe a two years' course of college instruction to be very desirable. They would then spend from five to six years in combined college and university residence; and, in view of the rigorous intellectual discipline given by the modern instruction in law, medicine, architecture, engineering, and the rest, and in view also of the undoubted educational value of those subjects as now taught, they would get from such a course a training of much general value, as well as one which bears especially upon their chosen profession."

Some institutions are combining professional preparatory study and professional study into one course, but the most satisfactory results can

hardly be obtained in this way. It is largely a make-shift to provide for those students who have entered upon professional study without sufficient preparation. Usually it has been found best to keep the courses separate. In order to do thoroughly high-grade work in the professional course, a trained mind, well equipped with the tools of scholarship and in those branches bearing upon the regular work, must be brought into service at the beginning of the course.

Domestic Science.—There is one profession of which as yet no mention has been made. Perchance, some will object to its being treated as a profession. But, really, in nobility of character and in demand for thorough equipment, no other life-work stands higher than the profession of Domestic Science, in its most inclusive meaning. The young women of to-day will be the wives and mothers of the next generation; and the responsibilities thus devolving upon them in House-keeping, in Cooking, in Dress, in Sanitation, and in the supervision of the young lives that shall come under their care, require a thorough training in all those branches that can throw light upon the momentous undertaking. Not

every wife and mother will be called upon to perform all these duties, but every woman ought to be able to decide intelligently what is the most healthful food and what the most hygienic dress for her household, to oversee the sanitary conditions of the home, and to direct the young lives that may come under her charge in paths which shall make for fullness and richness of development. That she may accomplish this with a marked degree of success, requires in this preparatory stage a considerable knowledge of Physics, Chemistry, Biology, Hygienic Physiology, Psychology, Ethics, Education, and Sociology, besides a very liberal general culture training. The educational equipment for this highest and most fitting calling of woman combines the essential training of the practical scientist with the pedagogical training of the professional teacher, for she is both — and more. May God speed the day when the profession of Domestic Science, not in its narrow utilitarian sense merely of cooking and sanitation, but broadly and comprehensively as dealing directly with the most vital conditions of human society, shall be given among our courses of study a place worthy its standing

as the most eminent profession to which woman can aspire!

Co-education.— This suggests another phase of higher educational work in regard to which the varied experiences of different institutions have not yet resulted in the formulation of a doctrine that will be generally accepted. Are men and women so constituted that they can, with most profit, pursue their studies at the same college or university and in the same classes? The statement of President Jordan is a fair representative of the more progressive elements in contemporary pedagogical thought:

* “ There are, of course, certain average differences between men and women as students. Women have often greater sympathy or greater readiness of memory or apprehension, greater fondness for technique. In the languages and literature, often in mathematics and history, they are found to excel. They lack, on the whole, originality. They are not attracted by unsolved problems and in the inductive or ‘ inexact ’ sciences they seldom take

* David Starr Jordan, address before the Federation of Woman’s Clubs, Los Angeles, May 5, 1902.

the lead. The 'motor' side of their minds and natures is not strongly developed. They do not work for results as much as for the pleasure of study. In the traditional courses of study—traditional for men—they are often very successful. Not that these courses have a fitness for women, but that women are more docile and less critical as to the purposes of education. And to all these statements there are many exceptions. In this, however, those who have taught both men and women must agree; the training of women is just as serious and just as important as the training of men, and no training is adequate for either which falls short of the best.

“ Shall women be taught in the same classes as men? This is partly a matter of taste or personal preference. It does no harm whatever to either men or women to meet those of the other sex in the same class rooms. But if they prefer not to do so, let them do otherwise. No harm is done in either case, nor has the matter more than secondary importance. Much has been said for and against the union in one institution of technical schools

and schools of liberal arts. The technical quality is emphasized by its separation from general culture. But I believe that better men are made when the two are brought more closely together. The culture studies and their students gain from the feeling of reality and utility cultivated by technical work. The technical students gain from association with men and influences of which the aggregate tendency is toward greater breadth of sympathy and a higher point of view.

“A woman’s college is more or less distinctly a technical school. In most cases, its purpose is distinctly stated to be such. It is a school of training for the profession of womanhood. It encourages womanliness of thought as more or less different from the plain thinking which is called manly. The brightest work in woman’s colleges is often accompanied by a nervous strain, as though its doers were fearful of falling short of some outside standard. The best work of men is natural, is unconscious, the normal result of the contact of the mind with the problem in question.

“In this direction, I think, lies the strong-

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est argument for co-education. This argument is especially cogent in institutions in which the individuality of the student is recognized and respected. In such schools each man, by his relation to action and realities, becomes a teacher of women in these regards, as, in other ways, each cultivated woman is a teacher of men.

“In woman’s education, as planned for women alone, the tendency is toward the study of beauty and order. Literature and language take precedence over science. Expression is valued more highly than action. In carrying this to an extreme the necessary relation of thought to action becomes obscured. The scholarship developed is not effective, because it is not related to success. The educated woman is likely to master technique, rather than art; method, rather than substance. She may know a good deal, but she can do nothing. Often her views of life must undergo painful changes before she can find her place in the world.

“In schools for men alone, the reverse condition often obtains. The sense of real-

ity obscures the elements of beauty and fitness. It is of great advantage to both men and women to meet on a plane of equality in education. Women are brought into contact with men who can do things — men in whom the sense of reality is strong, and who have definite views of life. This influence affects them for good. It turns them away from sentimentalism. It gives tone to their religious thoughts and impulses. Above all, it tends to encourage action as governed by ideals, as opposed to that resting on caprice. It gives them better standards of what is possible and impossible when the responsibility for action is thrown upon them.

“In like manner, the association with wise, sane and healthy women has its value for young men. This value has never been fully realized, even by the strongest advocates of co-education. It raises their ideal of womanhood, and the highest manhood must be associated with such an ideal.

“The only serious new argument against co-education is that derived from the fear of the adoption by universities of women’s standards

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of art and science rather than those of men, the fear that amateurism would take the place of specialization in our higher education. Women take up higher education because they enjoy it; men because their careers depend upon it. Only men, broadly speaking, are capable of objective studies. Only men can learn to face fact without flinching, unswayed by feeling or preference. The reality with women is the way in which the fact affects her. Original investigation, creative art, the 'resolute facing of the world as it is' — all belong to man's world, not at all to that of the average woman. That women in college do as good work as the men is beyond question. In the university they do not, for this difference exists, the rare exceptions only proving the rule, that women excel in technique, men in actual achievement. If instruction through investigation is the real work of the real university, then in the real university the work of the most gifted women may be only play."

With respect to past and present conditions, President Jordan's estimate of woman's relative status in higher educational work is unquestion-

ably a fair one. But the great sociological changes now taking place must inevitably affect woman's higher education to a considerable degree. The rapidly increasing number of women who are entering the various professions will result, in time, in the development of a more practical, independent, creative, original spirit among womankind in general, without necessarily lessening any of the qualities that contribute to the making of the best and truest and highest in present day womanhood.

Failure of Our Colleges to Practice Their True Function.—As the work of the leading stage is the peculiar function of the latter half of the secondary school course, so the work of the professional preparatory stage is the peculiar function of the college. Yet, in this particular phase of education where we should naturally expect to find the colleges strongest, they have, in the great majority of cases, proved the weakest. Look at their past courses of study. One would naturally expect, and he has a right to expect, that those who make a profession of educating our youth would investigate the relative educating powers of different studies, and would endeavor to ad-

just these to the requirements of the particular student. As a rule, however, colleges have in the past educated their students much on the same general quantitative plan on which the stockman fattens his cattle — so much a head. It is true that the courses in the various subjects have been comprehensive and thorough. But this does not involve at all an adjusted apportionment of studies. On the contrary, it may imply a special monopoly of privileges. Such has been in the past the case with mathematics and the classics, and just now the pendulum seems to be swinging to the other extreme in favor of the natural sciences. It is also true that in recent years most colleges have introduced one or more courses besides the classical.

The vital objection to all such plans is that they compel the student to adjust himself to a set course of development, instead of adjusting the means of development to the student's individuality; in other words, that it places formality above personality. While such a method may be permitted, with limitations, in our primary schools and in the first half of our secondary school courses, it is entitled to no valid place in our higher institutions.

It is further true that in many colleges the student is permitted to select a part of his studies, varying in different colleges from one-tenth to the whole of his work; but a large per cent of these electives are rather empty formalities than substantial gains. They remind one of the farmer who gave his son a sum of money and told him that he might spend it in whatever way he chose, provided he bought a pig or a calf or a sheep with it — the student may, in most of these instances, elect what he chooses, provided he chooses within a narrow range which has been arbitrarily prescribed. Even if he is allowed to elect his studies without restrictions, as is privileged in some institutions, that does not imply that he will make such selections with wisdom. The average student in the lower college classes is probably not qualified to map out intelligently his whole course. Still, it does not follow from this that he ought to have no voice in the selection of his work. Only a few of our leading institutions, notably Harvard and Leland Stanford, allow a wide choice of studies, and provide advisory boards for the purpose of assisting the students of the lower classes in selecting that course of

study best adapted to form an organic basis for their future professional work, their semi-professional relations, and their non-professional interests. A considerable difficulty in the way of such selection of studies is found in the fact that so many students go to college simply because it is popular or to become just cultured gentlemen and ladies. On these two classes no comment need be wasted. But by far the larger proportion of college students are destined to be men and women of action, and their peculiar powers ought to receive marked attention in college. Much more stress will be laid on this point in the immediate future than has been in the past, for the philosophy of study is stirring the educational world as it has never been stirred before.

Chief Reason for Weakness of College Training.—Unquestionably, the chief reason why the majority of our colleges have failed to practice the true function of college training in the life-building process of education, rests in their maintenance of that abstract, impersonal conception of a “liberal education” aside from any distinct utilitarian value. There is no such thing as a “liberal education,” however extended the course,

unless every branch in it has a substantial value and a clearly-defined organic relation to the whole process of education in general, and to the individual student in particular. *College education is not an end in itself. It is only a stage of education, lying between the secondary school and the professional school.* In so far as it has forgotten its place and attempted to give an education complete in itself, there it has fallen short in its mission, which is three-fold: first and major, to prepare the student for the professional school, not in that general, indefinite way called "liberal," but practically, scientifically, organically; secondly, to provide a liberal training in those semi-professional phases of activity which our complex social and industrial life interweaves so closely with successful professional studies; thirdly, to complement the narrowing tendencies of these preparatory studies along professional and semi-professional lines by such general culture studies as fully correspond to the individual mental wants. Just in what proportion these three departments of study in this stage should be distributed must be left for experience to determine. Local circumstances will

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influence to some extent. It is enough now, that, where the work of the general foundation and leading stages has been well done, the work of this stage should be approximately: professional preparatory study, a double major; semi-professional study, a major; general culture study, a minor. This is not suggested as an iron-clad formula. It is intended as simply an approximation to the relative worth of these respective departments for achieving the purpose of this stage.

CHAPTER VIII.

THE PROFESSIONAL STAGE

Three-fold Function.—Like the professional preparatory stage, and for the same reasons, the professional stage in its full compass should include three distinct lines of study — strictly professional study, which is its center and backbone, semi-professional study, and general culture study. Until recently so much of the student's time was wasted, partly in the elementary schools, but chiefly in the so-called "liberal" training of the colleges, that it was found necessary to devote the entire time of the professional course to strictly professional work. But the better adjustment of courses, in all grades, to the needs of the student is making it possible for the professional schools to give more complete and rational training. The more progressive schools are recognizing this three-fold function of the professional stage in various ways, according to the

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particular conditions with which they each must deal.

* "The college course in agriculture is designed for those graduates of the school of agriculture, and students from other institutions equally well prepared, who desire further instruction in practical agricultural science, in the sciences related to agriculture, and in literature and the arts."

This comprehensive view of professional training is being wrought out in its particular department by the School of Commerce, of the University of Wisconsin, whose masterly conception of the work it seeks to accomplish is given in full further on:

** "A carefully arranged curriculum has been prepared for this school (The School of Commerce) the object of which is to combine a thorough general education with such technical training as is needed for the successful prosecution of the various lines of business which have been indicated. . . . The number of required studies in the course is

* University of Minnesota Bulletin, June, 1902, p. 171.

** Catalogue of University of Wisconsin, for 1901-1902.

larger than in the other regular courses in the College of Letters and Science of the University. . . . In addition there are several groups of technical courses available for the election of students and which lead to particular lines of business. . . . The school also offers limited opportunities for election from the numerous courses of study given in the various departments of the University."

Principles Underlying Three-fold Function.— Exclusively technical training is essentially wrong in principle and injurious in its effects in practical life. It will not do, in any stage of the process, to lose sight of the whole aim of education. Completeness of personality must constantly stand foremost as the ultimate end toward which all courses of study shall tend. If it were true that this ultimate end were attained most successfully by concentrating all energies in this stage upon the strictly technical work, then this stage should be an exclusively technical one. But reason and common experience have decided otherwise. It is a matter of general knowledge that the natural tendency of a prolonged course of

specialized study exclusively dwelt upon is to develop in the student a narrow and strongly aggressive spirit, an over-abundant egoism, an undue assertion of self at the expense of others. This kind of spirit does, it is true, conduce to a certain kind of success — that kind measured by dollars and notoriety — but it is a deadly enemy to all the highest forms of personal character as well as to the highest forms of social and industrial life.

Social Demands.— No one acquainted with the various phases of society to-day will deny that this abnormal egoism is the great fomenting cause of our present-day social problems. Look where you may, be it on the mighty struggle between labor and capital, on the fierce contest between the great department stores and the small retailers, on the bitter and prolonged war between the people and the giant combines striving to monopolize the necessities of life— such as sugar and coal; or, coming nearer home, look at the exhibition of everyday life all around: The lawyer pleading his case in court puts forth all his energies to win the case for his client regardless of the merits of the matter and of the injustice that may

thereby be inflicted on the opposing party; the farmer, finding cholera breaking out among his bunch of fat hogs, rushes them off to market with hardly a second thought for the thousands of consumers whose lives he is thus imperiling; the man of business, wrapped in his overpowering ambition to amass a fortune, becomes accustomed to commercial practices in taking advantage of his fellow-men, which, while keeping within the literal provisions of the law, are nevertheless inconsistent with moral equity and Christian manhood; the over-zealous churchman, focusing his whole sight upon the works of his particular sphere of activity, grows blind to the beneficent functions of other phases of endeavor and gradually comes to believe that all callings outside his own are either non-religious or else positively irreligious; the tradesman, whose environment generally exerts a more or less prejudicial influence resulting in a class bias to his thinking and his sympathies, is prone to overlook all the necessary and upbuilding social functions of capital and capitalists and to regard them as powerful evils that must of right be shackled or crushed; the politician gloats over the victories

and the glories of his party with an eye single to its dominancy until he can see nothing of consequence outside of it, and holds even the welfare of his country at critical moments subservient to the demands of party expediency.

Professional Demands.—What is needed in practical life is not only greater energy and a higher degree of technical ability, but also greater breadth of mind and a larger community of sympathy. The constantly increasing complexity of business relations due to the marvelous development of inventions and of means of rapid communication, and the corresponding advancement in political and social life resulting from this and from the general diffusion of knowledge, render a high degree of technical ability more and more a fundamental necessity for professional success. But this great advance in civilization has brought with it such an intricately interwoven social fabric that to succeed in any worthy calling involves much more than a mere comprehension of the technical duties of that calling; it necessitates a thorough grounding in semi-professional and general culture work. One can not hope to attain to a position of commanding influence now-

a-days without a general familiarity with the fields lying all about his chosen field of work. The physician, for instance, must be more than a mere medical machine if he expects ever to rise to the upper strata of his profession. Not only does he stand in need of a general education such as is afforded in the preceding stages, but he must have a general culture corresponding in quality and degree to the advanced status of his technical studies. This all, for the fulfillment of the man with direct reference to his personal success as a physician.

Demands of the Complete Life.—When we come to consider his full success as a man, in the whole compass of all his powers and obligations, the range is even more broad and the requirements more exacting. A reasonable degree of personal success may be obtained although one be narrow and selfish and puny-hearted. Many rich men have made their immense fortunes through, or in spite of, the operation of these characteristics, and others have won fame in other lines by the same means; but such is only an inferior and temporary sort of success. The higher and lasting success, that kind which grows firmer and

richer as time wears on, requires a full man, strong, broad, lofty, great-souled, to make it attainable. In so far as education can give this completeness to the student, and it can achieve significant results toward this end when properly directed, its work in this stage must be done along the three great lines already mentioned — strictly professional study, semi-professional study, and general culture study.

Lines of Inquiry.—Let us consider more in detail what the professional stage ought to accomplish. For this purpose let us consider the aims, the character, and the relative importance of each of these three lines of study in this stage, that we may form a clear and rational conception of the professional stage in its entirety.

Main Work — Professional Study Proper.—The aim of professional study proper is three-fold — to furnish an understanding of professional principles, to acquaint the student with methods of professional investigation, and to impart skill in professional work. Institutions using this three-fold rule as the measure by which they lay out their courses of study seek first the foundation principles of professional life in general and of

the profession, or professions, in particular for which they offer preparation, and strive to ascertain the arrangement of studies which will set forth these principles in the most lucid and satisfactory manner; they endeavor also to find the best methods of professional study for each particular profession; and try to make each step so clear and the work so thorough that at the end of the course the student will be a skilled workman in his line, in so far as it is possible to accomplish this in the comparatively brief time to which the professional course is necessarily limited.

Complementary Work—Semi-Professional Study and General Culture Study.—The semi-professional and general culture departments of the professional stage naturally comprise advanced work along the same general lines as mapped out in the professional preparatory stage. The significance of this complementary work has already been commented on and need not be further mentioned here. The reasonableness of it in rounding out his personality will appeal more and more to the student as he advances in his course, and as the complexity, the

widely correlated interests, and the multifold responsibilities of his life work begin to appear before him in the fullness of their reality. So, it may be laid down as an inflexible rule, that the professional stage can not accomplish its whole purpose unless sufficient and thorough complementary work is done along the lines of semi-professionalism and general culture.

Practical Application.—Let us notice these three fundamental phases of the professional stage in their application to several of the leading professions, as revealed by a careful investigation and sifting of the courses in leading universities, colleges, and special schools, combined with whatever additions and emendations reason and experience would seem to dictate for our purposes in this connection.

Professional Study—Teaching.—For the training of teachers, the great majority of so-called professional courses in private normals and State normals do not deserve the name of professional courses at all. They are usually of high school grade, or, at the best, of a grade corresponding to the work of the lower classes in colleges, such work as ought to be done in the professional pre-

paratory course for teachers. Only a few institutions, particularly the University of the City of New York and Columbia University, maintain what may properly be called a professional pedagogical course.

Then let us inquire what general ground a strictly professional course for teachers should cover, assuming — as will be assumed for each of the professional courses to be noticed — that the professional preparatory work has already been well done, and keeping constantly before us that every professional course worthy of the name must be comprehensive enough in scope to include all the important bearings of that particular profession for which it is the direct preparation, that it must be fertile enough in the exposition of principles to afford a clear and philosophic insight into the general nature of such profession, and that it must furnish sufficient practical work in the application of these theoretical studies to give a fair basis for successful entrance into the routine duties of every-day affairs.

“As the study of humanity is the natural basis of the work of the teacher,” the professional course in pedagogics should be such as to make

the student an expert in dealing with those phases of humanity which come directly under his control, and as well to furnish him superior training in dealing with those phases correlated with, and directly subject to and modifying, his professional labors — such as the home, the church, and society at large. There are numerous schemes of classification for the essentials of this particular course, but for convenience we may divide it into five heads: (1) Those studies in which attention is focused upon the process of education, its methods, its philosophy, and its history; (2) those studies which lead to a direct, face-to-face knowledge of the pupil, the natural process of his development, the distinguishing characteristics of the different steps of his development, the peculiarities of his individuality, his abnormalities, if any; (3) those studies dealing especially with the school as the great instrument by which education is largely achieved — school management, school hygiene, school supervision, and school law; (4) a pedagogical study of those school branches which form the material of school instruction — and especially of those which the student expects to teach — including the school

aspects of physical and moral education; (5) practical work in teaching — under expert supervision wherever possible — and a somewhat extended professional visitation of schools in which the most progressive and successful methods are put in practice.

The School of Pedagogy, of New York University, gives an admirable outline of the work that such an institution should attempt:

* “The aim of the School of Pedagogy is to furnish thorough and complete professional training for teachers. For this purpose it brings together all that bears upon pedagogy from the history of education, from analytical, experimental and physiological psychology, from the science of medicine, from ethics, from philosophy, from æsthetics, from sociology, from the principles and art of teaching, and from a comparative study of different national systems of education. It unifies this knowledge into a body of pedagogical doctrine, and points out its application to the practical work of the educator.

* New York University, School of Pedagogy Bulletin, June 15, 1902, p. 6.

“ The plan of the institution places it upon the same basis as that of the best schools of law, medicine, and theology. The work is of distinctively university grade.”

Such, in substance, are the general lines along which the professional pedagogical student must needs work, whether preparing for work in the kindergarten, in the primary room, in the grammar grades, in the high school, in the college, in the professional school, or as principal or superintendent; though, of course, that particular department of work for which preparation is being made should form the center of the pedagogical investigations, about which all the other phases cluster and upon which they may throw their added light.

Agriculture.—A professional course in Agriculture, qualified to furnish a masterly acquaintance with the principles of farm work, should include at least the following:

Agricultural Chemistry:—A study of soils, their nature, their constituent parts, their temperatures, their capacity for holding water, the relation of soils to plant growth; crops, their effects in exhausting soil fertility, and the order

of rotation in crops most successful in preserving fertility of soil; manures and fertilizers, natural and artificial, their constituents, their adaptability, and methods of application to soils; animal nutrition, the elements demanded by different kinds of animals, or at different periods of growth, or for different purposes; feeding stuffs, considered with reference to furnishing the elements of animal nutrition as above.

Agricultural Physics:—Meteorology, methods of predetermining the weather conditions, and the instruments in common use; the beneficial influence of a scientific knowledge of weather conditions as affecting agricultural and horticultural interests; farm engineering, the principles of drainage and irrigation, the best methods of constructing and maintaining country roads; farm architecture, uses and construction of farm buildings; farm mechanics, study of vehicles and farm machinery, their strength, draft, and care, the ventilation warming, and sheltering power of farm buildings; tillage, the principles and the most successful methods as applied to different soils and climates and crops.

Economic Zoölogy:—A study of insects in-

jurious to grains, fruits, and vegetables, and of the methods, natural and artificial, of destroying them; and also a study of those insects helpful to the farmer, and of the methods of furthering their increase; the same of birds; the same of animals other than those called domestic animals.

Animal Husbandry:—A study of the most valuable breeds of live stock, characteristics, adaptation, and care of them, training in judging the points of good and of inferior animals by means of charts, models, score cards, etc.; the fundamental principles of breeding, heredity, correlation, prepotency, fecundity, atavism, variation, selection, period of gestation, in-and-in breeding, line breeding, etc.; feeding stuffs, chemical constituents, quantities, methods of preparing, feeding as to purposes — whether for the block, for growth, for milk, or for work; diseases of farm animals and their treatment.

Horticulture:—General principles, conditions of soil and climate, propagation, planting, cultivation, pruning, marketing, etc.; economic horticulture, the principal fruits and vegetables, growing, harvesting, marketing, and preserving them; injurious insects and plant diseases with their pre-

ventions and their remedies; æsthetic horticulture, the principles of landscape gardening, forming and caring for lawns, with a study of plants best adapted to these purposes.

Bacteriology:—Agricultural bacteriology, the relation of bacteria to various agricultural processes, the germ theory of disease, fermentation and decomposition as applied to practical agriculture; dairy bacteriology, the relation of bacteria to dairy problems, normal and abnormal fermentations in milk, etc.

Dairying:—Selecting and handling dairy stock, general principles of butter making and cheese making, the equipments necessary for successful dairying.

Farm Equipment:—The location of buildings, the formation of fields, the selection of machinery, general supervision and management—a study of these and extensive visitations and conferences with farmers who have successfully put into practice the most modern methods of scientific farming.

Agricultural Economics:—The sociological position of agriculture, its interrelations with other industries; the fundamental principles of

political economy, such as value, prices, money, banks, wages, industrial and monetary crises, the relations between labor and capital, the development and intricate division of industries, the increase of urban population — considered with special reference to their bearings on land and agricultural products.

Rural Law:—The laws of his own State bearing most directly upon the practical relations of the farmer, such as the essentials of deeds, leases, mortgages, contracts, and commercial paper, with practice in drafting them; road law, outside fences, trespassing, noxious weeds, easements for ditching or water right or travel, live stock laws relating to contagious or infectious diseases or to the running at large of stock, and other common phases of the legal rights and duties of farmers.

Several State Universities and Agricultural Schools are now offering courses of study highly valuable for their comprehensiveness and organic character. But in many of the schools there is much yet to be desired. Doubtless, a large part

For the above outline of agricultural study special acknowledgment for suggestions is due to the University of Wisconsin and Purdue University.

of this lack of professional equipment is due to the failure of State legislatures to make sufficient appropriations. It is entirely probable that the immediate future will witness provisions made in the common schools of rural districts for teaching the elements of agriculture. It is to be earnestly hoped that this may be brought about. Practical courses in the rudiments of agricultural science are of incomparably greater value to the average rural student than is much of the advanced work in technical grammar and algebra; not merely from a financial point of view, but from the standpoint of independent citizenship and all-round strength of character.

Business.—The business courses, presumed to be professional, and ordinarily so-called, as offered by the average "Business College," are not really professional courses, except in a very limited sense, and do not by any means meet the requirements that a thorough professional course in business should meet. No one will deny that the better grade of business courses now in vogue will produce skilled clerks and expert accountants, but that they will tend to produce masterly, far-sighted, broad-minded men of affairs, men

whose ambition is to be influential factors in great enterprises and who are not satisfied to be for life merely the hired human machines of some other financial master — that a few months spent in the ordinary business college will naturally lead the student into such currents of aspiration and prepare him to fill eventually such exalted positions, cannot for a moment be maintained. It is undisputed that many of our richest men have reached eminence with only a very limited school training in business, or with none at all; but their success was due in large measure to inherent genius, and their careers would not, in this respect, be safe guides for the vast majority who are not so singularly gifted. Besides, the mere amassing of money does not in itself mean success; on the contrary, it may mean the most ignominious of life failures. Doubtless, every reader can recall some man of enormous wealth whose happiness diminished as his business increased, whose heart contracted as his pocketbook expanded, whose higher, nobler life lay seared and dying as his millions-piled-on-millions held the wondering admiration of a money-worshipping world.

It is not all of life to eat and buy and sell. And a professional course ought to be so philosophic in its treatment of professional life and so true to the principles of complete life-development that the future man of business will be able to become a successful leader, not by trampling upon justice and mercy and brotherly interest, but by calling all the nobler powers of his mind into constant play, and by building up his whole character side by side with the increase of his business interests. Then, when his coffers are full of gold his soul-life will be full of those treasures which go to make himself and his fellow-men stronger and better and happier. Not that any course, however valuable in itself, can give these qualities to the student if he does not already possess the germs of them, but it can open up avenues of development that make a constant demand on all the stronger and loftier elements of character.

Such a course ought to contain, not only the work ordinarily given — a study of, and practice in, methods of accounting, modern mercantile methods, office work (real estate, insurance, commission, transportation and shipping, jobbing

and importing, railroad, etc.), banks and clearing houses, exchanges (stock and produce), and commercial law — but also a thorough study of money and the money market; of the economic history of England and of the United States; of industrial and financial crises and economic conditions generally; of the geography and history of commerce; of transportation, its methods (railroads and waterways) and their influence on business conditions; of corporations, trusts, and monopolies, their advantages, disadvantages, and legal regulations; of prices and the conditions chiefly determining them; of the wages system, progressive wages, the sliding-scale, profit-sharing, coöperation; of other economic problems that may arise, such as the sweating system, labor organizations, department stores versus the small retailers; of the sociological position and functions of commercial institutions as the medium between the great agricultural class of producers on the one hand and the whole people as consumers on the other, with extended investigations into the effects on business of those meteorological changes which affect so vitally agricultural interests, and of the chief con-

ditions determining the standard of living of the whole people—for instance, the tendency toward city life and the general diffusion of knowledge and worthy ideals.

The School of Commerce, of the University of Wisconsin, has manifested such a comprehensive and masterly grasp of the work a commercial school should do, that it has been thought worth while to give in full the plan of its course of study:

* “ PLAN OF THE COURSE OF STUDY

“ The studies of the School will be described in three groups:

“ I. Those required of all students no matter what business they desire to enter.

“ II. Specially arranged and correlated electives leading to the particular business which the student intends to enter.

“ III. Free electives chosen for the purposes of general culture.

I. Required Studies.

“ The courses belonging to this group are of three sorts:

“ (a) Those needed as a foundation or

* Catalogue, University of Wisconsin for 1901-02.

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preparation for more technical courses which are to follow. Under this head fall the courses in trigonometry, chemistry, physics, mediæval, modern, and American history, and economic geography. Trigonometry is needed in the study of physics; chemistry is essential to the study of the materials of commerce and their adulterations; and physics lays the foundation for the study of the generation and transmission of power, materials for construction, etc. The courses in history and economic geography are essential to the successful study of the subjects enumerated under (b) and they are also of direct practical advantage in extending the student's horizon and in giving him such an acquaintance with national habits and characteristics, and such skill in the interpretation of men and events, as are essential to the highest success in business.

“(b) This group includes a number of courses designed to acquaint the student with the structure of the business and commercial world, and with the methods of conducting modern business enterprises. Under this head fall the courses in the industrial history

of England, the history of commerce, business forms and accounts, transportation, banking and the mechanism of exchange, business organization and management, commercial law, and economics.

“(c) The studies belonging to this group are as essential to the general equipment of the business man, no matter what particular branch of business he pursues, as those mentioned under (a) and (b). It includes German, French, and Spanish. In one of these languages, at least, the student must acquire such facility in reading, speaking and writing as will enable him successfully to conduct business in the countries in which the language he has learned is spoken. . . . This group also includes a series of graded courses in the Study of English, designed to enable the student to use his mother tongue fluently and correctly. It also includes a course in the generation and transmission of power, designed to give the business men who graduate from this school a knowledge of the natural sources and limitations of water, steam, and electric power, and of the important place

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which these physical agencies occupy in the successful conduct of business enterprises.

“A careful, technical study of some group of products is also required of all students. So far as possible each one will be allowed to select the group in which he is most interested and which will best fit him for the business he expects to follow. As an indispensable aid to studies of this sort a commercial museum is being accumulated.

II. Technical Electives.

“In addition to the studies enumerated above and required of all students, groups of courses are arranged extending throughout the junior and senior years and designed to furnish special preparation for particular lines of business. Each student is required to elect one of these groups. The two following, preparatory to the business of banking and the consular service respectively, may be cited as typical:

“The first mentioned group consists of the following courses: (a) The Elements of Money and Banking; (b) The History of the

Currencies of the Chief Modern Nations; and
(c) Corporation, Finance and Securities.

“The consular group consists of the following courses; (a) International Law; (b) Commercial Geography of Europe; (c) History of Diplomacy; (d) History and characteristic features of the consular services of the chief foreign countries; (e) The Consular Service of the United States.

III. Free Electives.

“From three to five hours per week beginning with the second semester of the sophomore year and extending throughout the junior and senior years will be available to the students of this school for free electives. A large number of courses in the various departments of the University will be open to them, and they will be urged to make such selections as will contribute most to the increase of their general culture and to the extension of their knowledge along lines not represented in the required work of the school.”

The temptation to enter upon a business career with a totally insufficient training is greater, perhaps, than in any other profession, with the

exception of farming and teaching and domestic science. In each case there is no valid excuse for the existence of this lamentable lack of professional character. No one acquainted with human nature through the practical contact of everyday affairs believes that all young people can carry out highly developed technical courses demanding a natural adaptation to severe mental work. That will not be disputed. But, on the whole, what most students need is not so much an intensely scholastic temperament, as a strong, clear grasping of the fundamental principles of their future professional work — any student of ordinary capacity can get this — and a thorough and extensive application of these principles to the practical duties of everyday life — any student with a respectable measure of pluck and will-power can do this, also.

Domestic Science.— In the preceding chapter some of the studies most valuable as preparatory to the professional study of Domestic Science were mentioned. Here let us take notice of those which seem most essential to a strictly professional course, much of which must necessarily depend upon the thoroughness with which the

studies of the professional preparatory course have been carried on, since this course involves the practical application of the scientific principles there laid down. As in the case of the business course, we have to strike into a comparatively new and unexplored field in suggesting the general features of such a course. No courses in Domestic Science offered in any educational institution at the present time are worthy the dignity of a complete and thorough professional course, although several institutions offer courses in this line, some of which extend over several terms' work and are of considerable merit.

The Secretary of Agriculture has well said in his report for 1897:

“In this (Domestic Science), as in other branches of instruction which have a vital relation to the arts and industries, the student should learn not only the best methods of doing the things required by the daily needs of home life, but also the reasons why certain things are to be done and others avoided. In other words, this teaching needs a scientific basis if it is to be thoroughly useful. In this respect domestic science is in the same

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category with medicine, engineering, and agriculture. It is not so very long ago that medicine and engineering were very largely empirical arts, and the schools of medicine and engineering were principally engaged in teaching men the things they were to do when they became doctors or engineers. To-day, no doctor or engineer is considered fitted to pursue his profession until he has drunk deep at the fountains of science and knows well the principles on which successful practice must be based. In agriculture it is coming to be clearly seen that teaching the boy how to plow or to perform any other farm operation is not the most important service which the school can render. There must be added to this, definite and careful instruction in the principles on which agricultural practice is based. The farmer must be taught to think in the lines where science has shed light upon his art, if his practice is to be most thoroughly successful. Fortunately, science has already much to tell the farmer which is most useful to him, and every year sees an increase in the

great store room from which the agricultural student can safely draw.

“Now, what has been done for the boy in agriculture and engineering needs to be done for the girl in domestic art and science. And already the beginnings of a far-reaching effort in this direction have been made.”

Some of the most important features of a course which it is believed our best universities will eventually offer as a standard, are here suggested—a knowledge of physics and chemistry is highly desirable:—

House Equipment and Management:—Furniture, cooking utensils; the arrangement of kitchen, dining-room, bed-rooms, etc., with reference to hygienic principles of light, heat, and ventilation; the application of chemical principles to the cleaning of wood-work, furniture, dishes, clothing; the servant problem; social duties as hostess; visitations and conferences with progressive and successful housekeepers.

Foods:—The elements of physical nutrition; the composition of foods; kinds of food as demanded by conditions of climate, season, occupation, age, or state of health; methods of testing the most common adulterations of food.

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Cooking:—Fundamental principles; extensive application of these principles in the preparation of all the common kinds of foods.

House Sanitation: — Ventilation; heating; light; drainage; disinfectants.

Dress:—A thorough study of and practical work in the application of hygienic and artistic principles to the making of clothing.

Economic Biology:—A practical study of botany and zoölogy with special reference to their food phases — presupposing a fair general knowledge of these subjects.

Domestic Æsthetics:—Free-hand drawing; principles of and studies in interior house decoration; floriculture and landscape gardening.

Advanced Hygiene:—Advanced hygienic physiology with special reference to the peculiar constitution of woman and her ailments, the conditions of maternity, the physical care of children, and care of the sick and injured.

The Science of Education:—A practical study of the philosophy of education, with particular emphasis upon the educative influences that may be brought to bear upon children in the home life; a systematic series of investigations in prac-

tical child-study, designed to afford a scientific guidance in the rational training of children, intellectually, physically, and morally.

In one respect the course in domestic science differs from the other professional courses — in that it demands an unusually large complement of semi-professional and general culture study, owing to the manifold duties of woman in the fullness of her work as queen of the home. Holding essentially the combined positions of a practical scientist, a teacher, a business manager, and a confidential adviser, she must needs possess a wide and varied culture to meet successfully all her numerous obligations. More and more are we beginning to recognize that the profession of domestic science, in this broad sense, is the peer of any of the professions and that it demands equally thorough preparation. Of course, this thorough preparation can only be for those young women who are gifted by nature with power to do prolonged and severe mental work. But they will be the leaven for the whole mass; and, in a modified form, the essential principles can eventually be conveyed to all through many of the numerous avenues of intellectual

communication. Perhaps it will be some time yet before our higher institutions can be brought to offer complete and thorough courses in domestic science. It is not altogether to their credit that the neglect has been allowed to run thus long.

Law, Medicine, and Theology.—The chief drawback to satisfactory professional education in law, medicine, and theology, in this country, has been the low grade of requirements allowed to suffice for entrance to all but a few schools. It is absolutely impossible that the average student with only a common school education, or even with only a high school education, can get out of a comprehensive course in either of these professions, all that ought to be got from it. Some institutions are going to the opposite extreme by requiring a college diploma, or its equivalent, as a requisite for admission. Such demands are unwise in so far as they assume that the present college course occupies no more time than should be occupied by the professional preparatory course. Real fitness to do the work required in these courses, and not mere formality of previous training, ought to be, and must eventually be-

come, the only approved test of a student's qualifications to enter upon professional study.

The courses at present in our better classes of these schools are generally comprehensive in scope and organic in character, in so far as strictly professional study is concerned.

Law, Great Changes in.—With the lawyer, especially, professional education must be determined to a considerable extent by sociological conditions. The great changes which have taken place in the industrial world in the last ten years were briefly outlined in the chapter on leading study, and need not be dwelt on here, further than to call attention to the rapidly increasing demand for a broad and masterly grasp of commercial institutions and of industrial conditions in general, on the part of the future lawyer. What a professional course should do for the law student in a disciplinary way has been well put by a leading western university:

* “The power to think clearly, to reason cogently, to perceive distinctions quickly, to investigate thoroughly, to generalize carefully, and to express his thoughts accurately are the

* The University of Minnesota, Bulletin, June 1, 1902.

basal qualifications of the safe counsellor. To secure for the student these habits of thought and expression should be the aim of both the student himself and his instructor. . . . So far as possible he (the student) should, at the end of his course, grasp the various subjects of law in the unity of a system."

The following outline of the three years' instruction given in the principles of law by the College of Law of the University of Wisconsin may be considered as fairly representative of the best law schools of our country, including:

* "First. The Common Law, its history, development, and present state in the United States, with the statutory modifications generally adopted in the several States.

"Second. Equity, its history, development, and present state in the United States.

"Third. The Law of Procedure, including the practice and pleading in Common-Law Courts, Courts of Equity, and under the Codes of Civil Procedure, and in the Federal Courts.

"Fourth. The Public Law of the United States, and Constitutional Law.

* Catalogue, University of Wisconsin, 1901-02.

“International Law, Roman Law, and Comparative Constitutional Law are taught in the University in classes open to students of the College of Law.”

The above work is based on a minimum preparatory training of standard high schools, or the equivalent. Harvard, and Columbia beginning in 1903, admit none but graduates of colleges and scientific schools in good standing, or persons with equivalent training. The majority of our law schools need to elevate their grade of work. It is idle to expect first-class results in the professional school without a comprehensive and thorough professional preparatory course, of collegiate grade.

Spirit of Medical and of Theological Schools Compared.—Generally speaking, the standard of the schools of medicine and theology in this country have been higher and more nearly satisfactory than those of other professions. True, there have been, and still are, a number of low grade medical and theological schools, particularly medical schools. But public sentiment is more keenly awake to the needs for high grade training in these two fields than in any other fields of pro-

fessional activity — and the most effective educational work is seldom very far in advance of the best public sentiment. In fact, the very nature of the medical profession, scientific, practical, many-sided, has kept it constantly in touch with the best of progress in all the chief lines of human activity. The Johns Hopkins and Harvard Medical Schools stand for the best in American professional education. On the other hand, the classical inheritance of the theological profession has rather tended to make it exclusive, over-scholarly, and distant from the practical conditions of the masses of the people.

Christian Sociology.—Much credit is due to Oberlin and Yale for the emphasis they are laying upon the study of Christian Sociology in their theological courses. The minister ought to be better acquainted in the future, than he has been in the past, with the growth and organization of society, with the formation of social classes, with the dangers attending the concentration of population in cities, with the liquor question, with the relations of capital and labor, and, in general, with the defective, dependent, and delinquent classes.

Christian Pedagogy, The Great Theological Need.— But the one thing most lamentably lacking in the equipment of the average minister is skilled training in Christian Pedagogy. The minister ought to be a teacher, yea, a teacher of teachers, among his flock. He ought to be perfectly familiar with the natural order of development of the powers of the human mind, so that he could adapt his work to the best possible advantage. It is with feelings of the deepest reverence that criticism must be offered here. Witness the history of the great International System of Sunday School lessons. What a pedagogical monstrosity! No superintendent of public schools could hold his position for a day, who should venture to give all the pupils in all the grades of every school under his authority exactly the same topics for study. It is not natural for the young child to grasp the same lines of thought as the youth, nor is either the young child or the youth most naturally interested in the things of deepest concern to grown persons—no matter how these topics be simplified or scholarized. The Creator, in his infinite wisdom, has provided a natural order of learning, varying at different

stages of development in the human life, and the minister is under as great obligation to become familiar with this natural order of development as is the educator in the secular schools. It is indicative of marked progress in this respect to notice the emphasis now being laid on Christian Pedagogy by a number of our leading theological schools.

Journalism.— Even more than with the law, the professional courses in journalism must be determined by sociological conditions; for, to deal with society in all its varied phases, political, industrial, social, religious, educational, literary, light and serious, present and past, local and international, is the function of the journalist. He cannot hope to be successful without skilled training along the lines where his work lies. Why should we not have professional schools of Journalism, of equal grade with our best schools of Law, Theology, and Medicine? The need for broadly and thoroughly trained men is as great in journalism as in the other professions. No other class of workers wields a more powerful influence over the welfare of our country, our homes, and our very lives, than do the men at the

editorial desks. The University of Wisconsin, so fertile in organizing comprehensive schemes of work along various lines, offers a course in preparation for journalism, of rare insight into the essential equipment of the high grade journalist and rich in suggestion to other institutions contemplating similar courses. The course covers a period of three years, beginning with the junior collegiate year:

* “Some studies which are absolutely indispensable are italicized, and others will be indicated by the special adviser of the student, according to the work for which the latter is preparing. Beyond this the students are left free to take electives in other departments.

“It is presumed that students entering the school have studied ancient, mediæval, and modern history, as well as the elements of economics and political science. The language requirements will be adapted to individual needs, but the minimum requirement will be that of some one of the existing courses in the University, the students being allowed to make

* School of Economics and Political Science, University of Wisconsin, Catalogue, 1901-02.

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choice among the courses for this minimum of language work.

JUNIOR.

Economic Problems.

American History.

Constitutional Law.

Modern Systems of Education.

Agricultural Industries.

Municipal Government.

Moral Progress and Moral Education.

Advanced English.

General Survey of English Literature.

American Literature.

SENIOR.

English Constitutional History.

Nineteenth Century History.

Political Thought.

Contemporary Politics.

History of the West, alternately with Economic and Social History.

Colonial Politics.

Social Ethics.

Press Laws.

State and Federal Administration.

International Law.

Advanced English.

English Literature.

GRADUATE.

Advanced English.

Seminary in American History.

Distribution of Wealth.

Public Finance.

Modern Sociological Thought.

Seminary in Political Philosophy.

Seminary in Economics.

Diplomacy.

History of Institutions.

Seminary work in some line will be required."

It is added in explanation of the above course :

"It does not aim to offer technical instruction in the methods of practical journalism, but to provide a fund of information on social, economic, political, and historical questions, which is indispensable in journalistic work of a high grade."

May we not, of right, expect for the near future that our leading universities will offer the equivalent of the above course, and, in addition,

technical instruction in the methods of practical journalism?

Complementary Study.— Semi-Professional and General Culture.—There seems to be a growing disposition among professional schools to allow the semi-professional and general culture studies a place on the program. It has been the logical result, partly of our highly industrialized civilization, but chiefly of our arbitrary, loosely connected systems of educational work, to make our education, and especially our higher education, abnormally specialistic and technical. But a healthy reaction is setting in, and the vital, character-building import of these two complementary courses is gradually being recognized and their recognition embodied in our professional curricula.

Recognition by Schools.—Under certain restrictions, most of our leading universities have thrown open the college department to students in their professional schools. In doing this, the ultimate aim has, doubtless, been rather to secure a thoroughly grounded and comprehensive professional training, than to afford opportunity for high-grade training in these two great complementary fields.

COMPLEMENTARY STUDY

* “ It seems to be conceded now that the law should be studied in a law school, and that the law school should be connected with a university, where students may avail themselves of opportunities for the study of such other branches of learning as are of allied significance.”

** “ The graduate courses of instruction in the University are open to the students of the Divinity School without charge, on conditions prescribed by the Theological Faculty. Undergraduate courses in the University are also open to students of the Divinity School with the consent of the instructor in each case and likewise under conditions prescribed by the Theological Faculty.”

† “ Students of the Department of Medicine may attend, without additional charge, the lectures and recitations in any other department of the University. This privilege, however, can be obtained only by the concurrent endorse-

* University of Michigan, Department of Law, Announcement, 1902-03.

** Yale Divinity School, Announcement, 1902-03.

† University of Pennsylvania, Department of Medicine, Announcement, February, 1903.

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ment of the application in writing by the Deans of the respective Faculties.”

* “All students of the Scientific School may, if found competent, pursue any of the courses of instruction given in the other departments of the University, except exercises carried on in the special laboratories, without additional charge.

Relative Amount.—The relative amount of time, as compared with the strictly professional work, which semi-professional and general culture study should require in this stage, presupposing a balanced training of the student in the previous stages, will naturally be somewhat less than in the professional preparatory stage, owing to the more centralized character of this stage—approximately, minor studies to a double major.

Character of Semi-Professional Study.—The character of the semi-professional study in this stage, for the several professions just noticed, may be summed up in a few words, so far as our purpose here demands. Taking into consideration the great social fact that society is an or-

* Lawrence Scientific School, Harvard University, Announcement, 1902-03.

ganism, that all phases of life-activity are consequently more or less related to each other, and that certain spheres of life work are so directly related to each other as practically to form groups in which a professional preparation for one sphere in the group necessitates a somewhat extended knowledge of the other spheres in that group and also by reason of these semi-professional relations, brings special obligations upon the student to equip himself along these semi-professional lines that he may be fitted to wield a potent power for the uplifting of those social institutions for which he ought to do much — taking these things into consideration, as every rational system of education must, we have only to inquire what this means for each of the professions under consideration.

Principles Applied.— Since the professional equipment of the teacher lies in the fund of knowledge and experience which he possesses concerning the science and art of developing children into noble, useful men and women, he is particularly fitted to exert a strong and beneficial influence upon all those institutions which aid or hinder the school in its work — such as the home, the Sun-

day school, and local society in its educational phases. As the highest function of the student of domestic science, as future wife and mother, is essentially the same as that of the teacher — the bringing of childhood into completeness of manhood and womanhood — she owes it as a duty to prepare herself to take an active part in those related institutions which bear toward this end: the school, the Sunday school, the church, and local society. So, the business man, not only because of his direct interests, but because of his economic training, is peculiarly qualified to wield a powerful influence in the management of municipal politics, which despite its name is largely a business affair. So, the lawyer, skilled by professional training in the science of the structure of society and in the practical ordering of social relations, has been, and will always be, the influential factor in politics and government. So, the farmer, conceding to the lawyer the leadership in state and national governments and to the business man the leadership in municipal government, finds that upon himself mainly rests the maintenance and advancement of the systems of local self-government, county and township, of the latter of which Thomas Jefferson said:

“ It is the vital principle of our government, and has proved itself the wisest invention ever devised by the wit of man for the perfect exercise of self-government, and for its preservation.”

These outlines do not pretend to include all the semi-professional phases of these professions. The aim has been simply to suggest to our educators the great truth, that *semi-professionalism is the second fundamental department of life-activity.*

Principles Determining Length of Professional Stage.—The length of the professional stage best adapted to produce the most effective professional workers is determined by clearly defined limits. The minimum limit demands that enough time and labor shall be expended to achieve the three-fold purpose of professional study — a clear understanding of the fundamental professional principles, an intimate acquaintance with the best methods of professional work, and enough skill to enter intelligently upon the details of practical life — and also to afford a reasonable amount of semi-professional and of general culture study. A professional stage that, in

any way, falls short of fullness in these respects, is, to that extent, incomplete. The maximum limit is determined by the natural development of the student as a social being, which demands, for reasons mentioned in a previous chapter, that he shall be prepared to enter upon the duties of his life work as soon as possible after the age of twenty-one. Allowing three years for the length of the professional stage — an amount of work which our ablest and most experienced educators have found necessary — it is not practicable under existing educational conditions to finish the professional stage much before the age of twenty-four. But altogether likely the advance in educational methods will soon render it possible to reduce the age of entering upon professional life by two or three years — an end greatly to be desired. However, until such concentration of work shall be brought about, completeness of study should be insisted upon, even at the expense of a few years of time.

Principles Governing General Culture Study.—

In concluding these brief expositions of the great stages of study, it does not seem necessary to mention further the place of general culture

study in the general scheme, except to emphasize again that symmetry and completeness of character cannot be developed without carrying on a liberal course of general culture work continuously and systematically; not work that is merely traditional, fashionable, or popular, but that which is in harmony with the mental constitution of the individual student. In general, the work of general culture may be said to lie along three lines: (1) preparation for intelligent participation in those social and political phases of society, national, state, and local, amidst which we live, demanding a full and practical study of social and political philosophy from those who do not take it in their professional or semi-professional work; (2) culture along those lines most likely to be neglected in the specialization of one's professional work, and intended to keep one alive to the general status and trend of all the chief departments of human activity; (3) the development of those non-professional specialties or interests which we all possess to a greater or less degree. It often happens that a great measure of personal enjoyment and of general benevolence comes from the pursuit of a line of work in no

direct way connected with the ordinary duties of one's chosen profession.

Examples.— Lord Bacon was by profession a lawyer and a judge; Grote and Niebuhr, the historians, were bankers; John Stuart Mill and Charles Lamb were employees of the East India House; Schiller was a surgeon, and Oliver Wendell Holmes, a physician. Many statesmen of eminence have won distinction in the world of letters, like Disraeli, the Earl of Derby, Lord Lytton, Gladstone, Henry Cabot Lodge, and Theodore Roosevelt. On the other hand, men of eminence in literary and educational callings have won renown in statesmanship and diplomacy — literary men like Matthew Arnold, John Hay, Lamartine, and Guizot; and heads of educational institutions, like Witherspoon of Princeton, Garfield of Hiram, White of Cornell, Angell of the University of Michigan, and Lord Salisbury of Oxford. With no less degree of ability, Cincinnatus and Israel Putnam each left his plow to lead an army on to victory; and George Washington turned from his ancestral estate to become, “First in war, first in peace, and first in the hearts of his countrymen.” Scores of

other examples might be added from all the various walks of life, but the task is left open for inspiration and suggestion. Every educational worker ought to verify by personal investigations, and to grasp in its full meaning, this last significant truth — that *general culture activity is the third great department of a fully developed life.*

CHAPTER IX.

SUMMARY

General Summary.—This comprehends, in substance, the basic outlines of the science of study. Much that might have been contributed to a more thorough discussion has been omitted — such, for instance, as the periods of predominancy of the senses, of the imagination, and of memory in childhood — in the belief that such features can best be considered in discussions limited to their particular periods. The dominant aim throughout has been to focus attention upon only the chief distinguishing periods of a human life, as they must be dealt with from an educational standpoint. With this in view, the organic basis and the organic structure of a rational scheme of study have been investigated, and the great stages of student life and the great departments of study material somewhat fully outlined, with their respective characteristics, functions, and values. On the principal features there can be no confusion,

and, it is believed, no dispute. On matters of detail, such as the approximate length of the different stages of study and the year-limits of the period in the student's life which they should occupy, there may be, and doubtless will be, much difference of opinion; but that is not material to the present purpose. Matters of that kind must be determined by the facilities and by the quality of instruction obtaining at the particular institution and also by the intellectual status of the individual student. It is enough if this discussion shall be found of service in helping to mark out the great fields of educational work and to make clear that the problem of education is a scientific problem capable of scientific solution.

Educational Creed.—The gist of an organic scheme of educational work may be stated in the following fundamental propositions:

(1) That human society is permeated by a Divine purpose that is gradually leading humanity toward an ideal destiny.

(2) That each human life is, or ought to be, the embodiment of a purpose in harmony with the Divine social purpose.

(3) That a life purpose implies a life work.

SUMMARY

(4) That the nature of each individual's life work is determined by heredity and environments.

(5) That the best preparation for life work is obtained through a preliminary period of study.

(6) That, as man is an organic being developing by gradual, organic growth, this whole period of student life should be organic.

(7) That the character and length of the student period should be determined by the status of the individual and by the sociological demands.

(8) That, in all stages of the student period, the character of the study material should correspond to the relative development of life purpose.

(9) That the chief aim of study is to develop successful professional workers, in the highest sense.

(10) That society is so organized as to cause the student to be fitted for trained social service in fields of activities correlated to his life work, while he is being prepared for his professional life work.

(11) That most persons feel an active interest in certain matters in no way connected with their professional work, and often achieve great good

along such lines, necessitating recognition in the scheme of student life.

(12) That, consequently, a complete education involves, (a) a broad and thorough training for one's chosen life work; (b) a thorough training for social service in one's semi-professional activities; and (c) a liberal course in general culture and in such non-professional subjects as are of special interest to him.

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